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Worker displacement

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The December *Review*

This month, we present two papers on wage inequality from authors based outside the Bureau of Labor Statistics. Jared Bernstein and Lawrence Mishel of the Economic Policy Institute debate Robert I. Lerman of American University and the Urban Institute on the degree to which inequality has changed in the most recent years. Both papers agree with the widely held view that earnings inequality increased during the 1980s. They diverge sharply in their view of events since then. Bernstein and Mishel argue that the early 1990s saw a fairly straightforward extension of the rising inequality evident in the previous decade. Lerman, in contrast, finds that, at the very least, the rate of increase has moderated substantially.

Inequality is, as we pointed out in this column 4 months ago, a complex, multidimensional puzzle. In this focus section on wage and earnings inequality, we show that even one dimension of the issue is difficult to disentangle. As always, the work of outside authors represents their own work and may not reflect the views of the Bureau of Labor Statistics or its staff.

Steven Hipple's article on job displacement, while again not intended to be an analysis of inequality, also indirectly touches on the issue of income inequality. To the extent that job displacement reduces income, any change in its incidence has important implications for the distribution of income, even if wage inequality is unchanged. Hipple finds that while displacement rates have fallen, those job losses that did occur were more widely dispersed across industries and occupations and that displacement rates were more similar across demographic groups than had been the case in the past.

Young and crowded

What happens when the youth cohort of the labor market is relatively large? Not much on the employment side, say Sanders Korenman and David Neumark in a NBER Working Paper, *Cohort Crowding and Youth Labor Markets: A Cross-National Analysis*. On the unemployment side they found that every additional percentage point of relative youth cohort size is associated with a youth unemployment rate approximately half a point higher. Korenman and Neumark caution, however, that even for the handful of countries with relatively high youth unemployment and large projected declines in youth population share, jobless rates for young workers are "much more responsive to general labor market improvements than to declines in cohort size." While a decline in the relative size of the youth labor cohort may be helpful, any substantial reduction in youth unemployment will have to come from other sources.

A nice place to compete

Ranking places on the basis of their international competitiveness is always serious science and usually interesting as policy art. A recent example is no exception and extends some of the scientific methods used in national-level studies by the World Economic Forum and the International Institute for Management Development to compare the international competitiveness of metropolitan areas.

Dennis A. Rondinelli and Gyula Vastag, writing in the November 1997 *Economic Development Quarterly*, use such national studies as the starting point for their comparison of 11 major cities. The national rankings phase found Frankfurt, Germany, and Singapore tied for first, with the American cities, New York and San Francisco, just behind. When five broad categories of city-specific indicators—population and work force, foreign-interest activities and openness to foreign cultures, trade-related infrastructure and transportation, operating cost conditions, and quality-of-life conditions—were added to the rankings, New York City jumped out to a commanding lead.

The City scored extremely well on the size and educational attainment of its population and also scored impressively on its foreign-interest activities, openness to foreign cultures, and trade-related infrastructure, according to co-author Rondenelli, a professor of management at the University of North Carolina.

Better job matching in the 1990's?

"The efficiency with which unemployed workers are matched with job vacancies has increased significantly in the late 1980s and early 1990s," says Hoyt Bleakley and Jeffrey C. Fuhrer in the most recent edition of *New England Economic Review*. Their analysis is based on measuring changes in the location of the Beveridge curve—the normally negative relationship between the unemployment and job vacancy rates.

According to Bleakley and Fuhrer, unemployment and vacancy rates were about 0.6 percentage point lower in the early 1990s than they had been at a roughly comparable point in the business cycle a decade earlier. Their model of the job-matching function, which predicts this shift quite well, was used in a series of simulations that suggested that an increase in job matching efficiency accounted for about two-thirds of the change.

Shiskin Award nominations

Nominations are invited for the 1998 Julius Shiskin Award for Economic Statistics, a prize established in 1979 to recognize contributions to the development of economic statistics or their use in interpreting the economy. A nomination form may be obtained by writing to the Julius Shiskin Award Committee, American Statistical Association, 1429 Duke Street, Alexandria, VA 22314–3402 or via e-mail to marie@amstat.org Completed nominations must be received by April 1, 1998.

The January *Review*

Next month is our annual review of developments in labor, unemployment insurance, and workers' compensation laws.

Has wage inequality stopped growing?

Earnings inequality increased sharply in the early 1980s, tapered off in the late 1980s, and reaccelerated in the 1990s; although inequality increased overall and for men and women separately, a combined analysis overlooks differences in the labor market dynamics of men and women

Jared Bernstein
and
Lawrence Mishel

It is by now almost a platitude of labor economics that wage inequality has increased quite sharply since the late 1970s, for both men and women.[1] This article examines several questions regarding that generalization:

1. Did earnings inequality among all workers stop growing in the mid-1980s?
2. What data serve best to measure the trend in equality, and which metrics are the most revealing?
3. In examining trends in wage inequality, when should we look at the combined distribution of men's and women's earnings, rather than at their separate distributions?

In answer to the first question, we present extensive evidence that overall earnings inequality has consistently increased since 1979, although the rate of increase has not been constant. The sharpest increase was in the early 1980s, followed by a flattening in the second half of the 1980s and a reacceleration in the 1990s. With regard to the second question, we argue the relative virtues of the variety of data sets brought to bear on this issue, concluding that, of the three data sets we examine—the March Current Population Survey (CPS), the CPS Outgoing Rotation Group files, and the Survey of Income and Program Participation—the second is best for measuring earnings inequality. Nevertheless, to the extent that we can compare these data sets, they all show persistently growing inequality. Finally, addressing the third question, we argue that combining data on male and female earners provides some insights, but inappropriately ignores differences in men's and women's labor market dynamics.

Jared Bernstein is an economist at the Economic Policy Institute, Washington, DC; Lawrence Mishel is the research director of the institute.

Evidence from the March CPS

The data set that has been most commonly exploited to examine trends in earnings inequality is the March CPS, wherein respondents are asked questions about their annual earnings, as well as the number of weeks and the usual weekly hours they worked the previous year. Their responses may then be used to calculate hourly wage rates for all workers, including the self-employed. To measure inequality trends, we utilize these wage rates to calculate Gini coefficients and percentile wage differentials.[2]

However, before we can reliably measure inequality trends in the CPS or, for that matter, any other public-use data set, we must deal with the issue of top codes, an issue that becomes particularly germane when earnings at the top are growing quickly relative to those elsewhere in the earnings distribution. The top-code problem stems from the fact that reported earnings are capped in the public-use files of the CPS. In 1981 through 1983, for example, the top code for annual earnings was $75,000; beginning in 1984, it was raised to $99,999. Because workers can report earnings

from different sources in the March CPS (typically, earnings from the longest held job and other earnings), either one or both of the values they report can be top coded.

There are a number of ways to approach the top-coding problem. One is simply to ignore top coding. Doing this, however, is a problem in Gini analysis, because nominal wage growth over a period when the top code does not change or increases only slightly will lead to increasing shares of earners who are top coded, thus biasing the Gini coefficients downward. Such a downward bias applied between 1981 and 1987, when the top code stayed between $75,000 and $99,999, before doubling in 1988.

We employ two different approaches to the top-code problem. The first is to truncate all data at or above the top code, so that one examines only the population unaffected by top coding.[3] In the March CPS data on earnings, this can be accomplished by truncating the distribution at the 98th percentile.[4]

Table 1. Gini coefficients, all workers, 1979–95, March CPS

Year	Hourly wage			
	Weighted by persons[1]	Weighted by hours[1]	Weighted by hours and truncated[2]	Person-weighted weekly earnings[1]
1979	0.3418	0.3358	0.3089	0.3864
1980	.3426	.3360	.3093	.3868
1981	.3467	.3403	.3125	.3924
1982	.3506	.3441	.3166	.3968
1983	.3512	.3434	.3172	.3983
1984	.3551	.3476	.3213	.4010
1985	.3569	.3502	.3229	.4027
1986	.3618	.3557	.3268	.4076
1987	.3597	.3532	.3254	.4048
1988	.3621	.3545	.3235	.4072
1989	.3632	.3566	.3253	.4069
1990	.3609	.3548	.3247	.4037
1991	.3617	.3552	.3258	.4062
1992	.3633	.3568	.3255	.4085
1993	.3726	.3666	.3325	.4175
1994	.3772	.3719	.3359	.4239
1995	.3790	.3723	.3364	.4212
1996	.3860	.3804	.3390	.4399
Annualized percent changes:				
1979–89	.61	.60	.52	.52
1989–96	.87	.93	.59	1.12

[1] Employs Pareto-imputed values for top-coded cases.

[2] Top 2 percent of earnings distribution omitted.

SOURCE: Authors' analysis of March CPS.

The second approach is to assume that the unobserved upper tail of the earnings distribution is Pareto distributed and to use the observed values below the top code, along with the definition of the Pareto distribution, to impute the average value of earnings above the top code. These Pareto-imputed averages tend to increase as the nominal wage distribution shifts to the right, even when the top code remains fixed. The approach is far from perfect—it involves imputing one value for all top-coded earners[5]—but we would argue that, for the purpose of calculating Gini indexes, it is better than ignoring top codes altogether.

Columns one and two of table 1 show the Gini coefficients from the March CPS for the hourly wages of all earners.[6] (Column one is weighted by persons, column two by hours; we discuss these relative weighting schemes shortly.) The table reveals that wage inequality grew steadily through 1986, flattened from 1986 to 1990, rose sharply in 1993, and continued to grow through 1996. The bottom panel of the table shows the annualized percent change in the Gini coefficients over the two business cycles covered by the analysis, 1979–89 and 1989–96. When Gini coefficients are measured in this way, the annualized rate of increase actually proves to have been larger in the 1990s than in the 1980s.

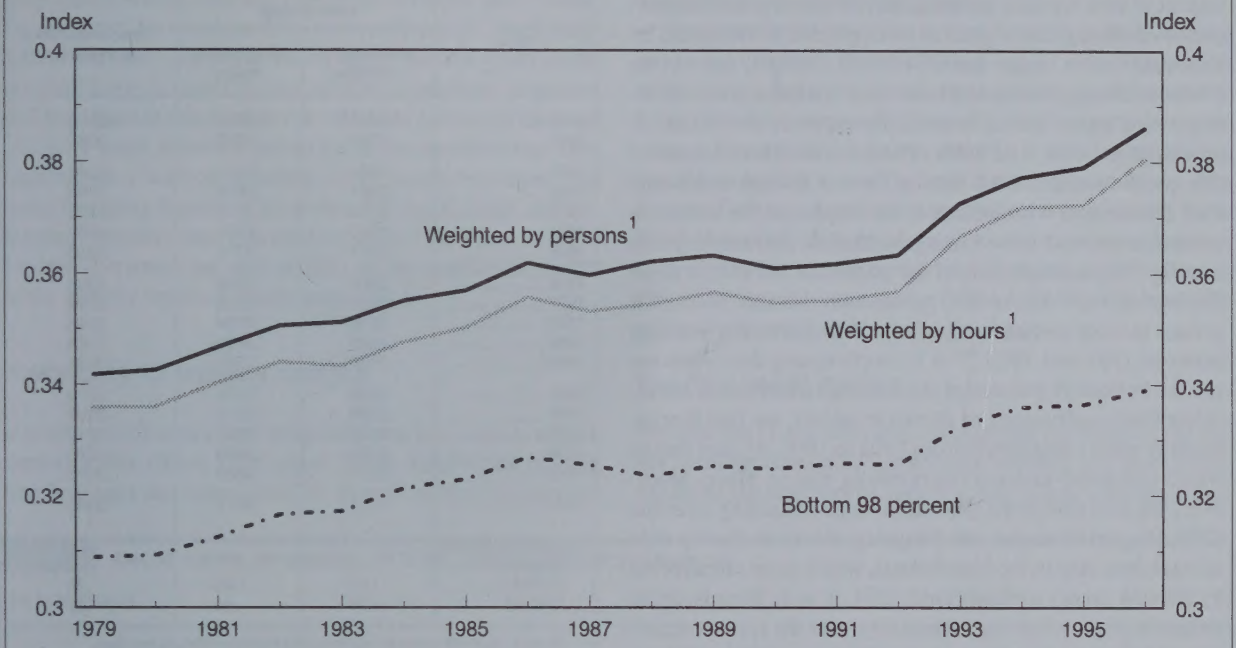
One might argue that each worker should be weighted by his or her hours worked, so that a person working 40 hours would count twice as much as one working 20 hours.[7] We discuss the rationale for this weighting scheme later; here, we merely point out that the hour-weighted and person-weighted measures show the same trends, suggesting that the choice of weighting by persons or hours leads to similar results regarding growth rates. (See chart 1.)

We also examine the trends in a sample truncated to exclude the top 2 percent, thus avoiding top-coded cases.[8] As column three of table 1 shows, wage inequality rose continuously in this sample as well, again accelerating in the 1990s. We conclude that, according to the March CPS data, wage inequality grew persistently during the 1980s and 1990s, a finding that becomes evident using weighting by hours or persons and examining the bottom 98 percent of the distribution, or using the entire distribution with some correction for top coding.

One last issue regarding the March CPS series is the extent to which the change in the survey procedure affects the results for recent years. Beginning in 1994, March data (with values for 1993) were collected using computer-assisted interviewing, as opposed to the earlier paper-and-pencil method.[9] The relevant question is whether this change in survey method could have led to merely an observed (as opposed to an actual) increase in wage inequality from 1992 to 1993.

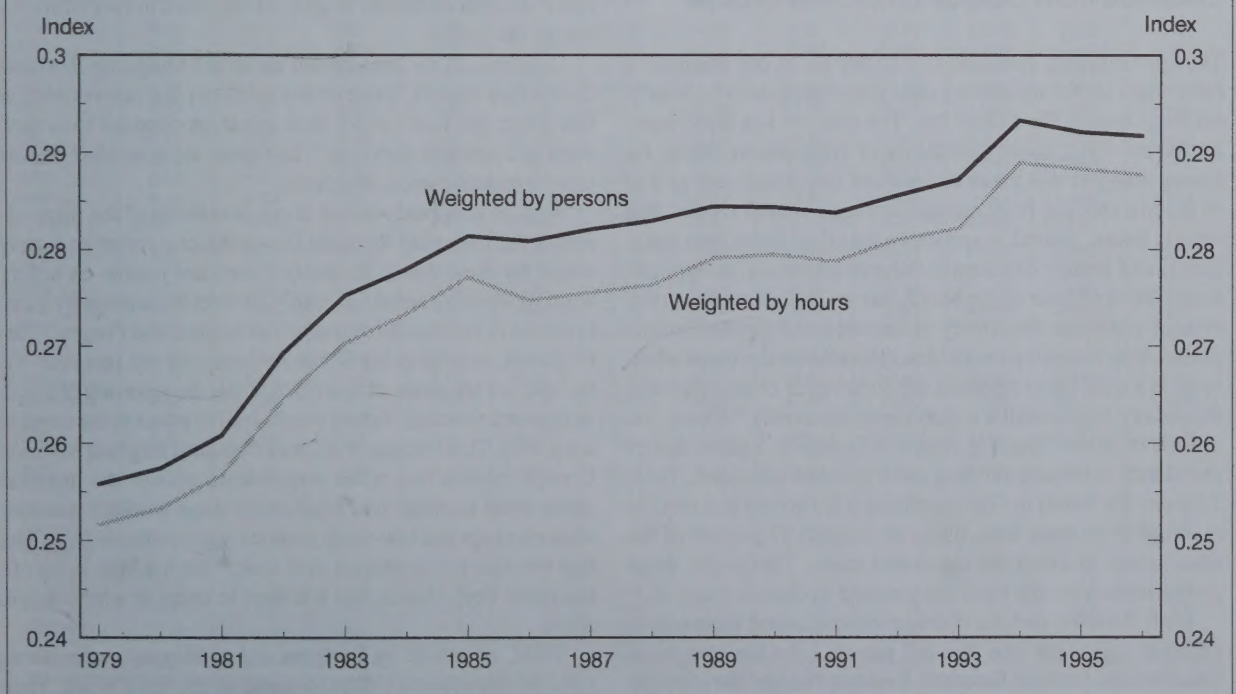
A review of the available evidence, however, suggests that the observed increase in wage inequality between 1992 and 1993 primarily reflects real changes in the economy, rather

Chart 1. **Gini coefficients, March CPS, 1979–96**



[1] Includes Pareto-imputed top codes.

Chart 2. **Gini coefficients, Outgoing Rotation Group CPS, bottom 97 percent, 1979–96**



than just changes in survey techniques. For one, a change in demographic weights was also introduced in 1994, and the impact of new weights on inequality, if present, is a real impact, even though the impact of demographic shifts should be allocated over a longer period of time. Second, there is no evidence to suggest that implementing computer-assisted interviewing either led to, or could be expected to lead to, an upward bias in the Gini index. The most detailed analysis of this question comes from former Census Bureau economist Paul Ryscavage, who looked at the impact of the switch to computer-assisted interviewing on income and earnings inequality.[10] Ryscavage judged the impact of the switch to be "inconclusive,"[11] but he also pointed out that the "forces for greater income inequality may have been particularly strong between 1992 and 1993."[12] It is worth noting that when we use the bottom 98 percent of the earnings distribution to calculate Gini coefficients, as shown in table 1, we find that inequality grew consistently from 1993 to 1996, 4 years during which computer-assisted interviewing was in place. Moreover, we also find some growth in wage inequality over the 1992–93 period in the CPS Outgoing Rotation Group data (though less than in the March data), which were not affected by the new survey methods until 1994. In sum, there is ample evidence of growing wage inequality over the current recovery, and there is no reason to wholly discount the 1992–93 increase.

Evidence from Outgoing Rotation Groups

The CPS Outgoing Rotation Group file is, in our opinion, a better data set for measuring changes in inequality in hourly earnings than is the March CPS. The data set has three main attributes. First, about two-thirds of respondents report an hourly wage, so this measure need not be constructed, as it is in the March data, from annual earnings, annual weeks, and weekly hours. Second, respondents are asked about their usual hourly and weekly earnings in the previous week, as opposed to the previous year in the March survey and each of the previous 4 months in the Survey of Income and Program Participation, thus lessening recall bias. (Recall bias develops when there is a time lapse between the occurrence of an event and the survey respondent's reporting of the event).[13] Third, the sample from the Outgoing Rotation Groups is 3 times that of the March CPS, thus providing more accurate estimates. Table 2 reports the trends in Gini coefficients for hourly and weekly earnings from these data, using the bottom 97 percent of the distribution to avoid the top-coded cases. The hourly wage coefficients from the table are graphed in chart 2 (page 5).[14]

Both the table and the chart reveal continued increases in earnings inequality over the full period. Like the March CPS data, the data from the Outgoing Rotation Groups show a steep increase in the first half of the 1980s, with a flattening thereafter. Unlike the March CPS data, however, in the Outgoing Rotation Group the trend in inequality decelerates over the current cycle, but continues to grow at one-third to two-fifths the rate of the 1980s.

Table 2. Gini coefficients, bottom 97 percent, all workers, 1979–96, Outgoing Rotation Group CPS

Year	Hourly wage		Person-weighted weekly earnings
	Weighted by persons	Weighted by hours	
1979	0.2558	0.2516	0.3000
1980	.2574	.2533	.3021
1981	.2608	.2567	.3060
1982	.2693	.2646	.3163
1983	.2753	.2703	.3223
1984	.2780	.2734	.3237
1985	.2814	.2772	.3256
1986	.2809	.2748	.3284
1987	.2821	.2756	.3298
1988	.2830	.2764	.3298
1989	.2845	.2791	.3265
1990	.2844	.2795	.3261
1991	.2838	.2788	.3276
1992	.2856	.2810	.3296
1993	.2872	.2822	.3312
1994	.2933	.2889	.3383
1995	.2921	.2883	.3386
1996	.2917	.2877	.3386
Annualized percent changes:			
1979–89	1.07	1.04	.85
1989–96	.36	.44	.52

SOURCE: Authors' analysis of Outgoing Rotation Group CPS data.

Criticisms have been raised about the Outgoing Rotation Group data as well. Some critics point out that respondents in this group are asked about their *usual*, as opposed to *actual*, weekly hours and earnings.[15] But there are a number of reasons to question such criticisms.

First, as previously noted, about two-thirds of the respondents in the Outgoing Rotation Group directly report an hourly wage; for these cases, the analyst need not impute an hourly wage by dividing annual, monthly, or weekly earnings by usual hours, as in the March CPS, Survey of Income and Program Participation, and Outgoing Rotation Group survey, respectively. Second, we are aware of no evidence that the reporting of usual, as opposed to actual, values would lead to a bias in the *trend* in inequality. This critique of the data from the Outgoing Rotation Groups implies that when respondents answer the question about usual earnings and hours, high-wage workers overestimate earnings and low-wage workers underestimate them, and that this bias has worsened over time.[16] Such a bias, however, has never been shown, and it is hard to imagine why it would exist.

Third, an article by Rodgers and colleagues—sometimes cited in this context—fails to speak to the issue at all. Their article examines measurement error in the Panel Study of In-

come Dynamics, a survey that is completely separate from the CPS. More importantly, the usual pay period in the Panel Study is the past 2 weeks, whereas that of the CPS is the past 1 week. Furthermore, the usual question on hours from the Panel Study asks about hours per week. The authors find significant measurement error in earnings data derived from these responses and hypothesize that the 2-week reference period for earnings and the 1-week reference period for hours may have confused respondents. Clearly, this finding cannot reasonably be ascribed to the Outgoing Rotation Group data. Finally, Rodgers and colleagues explicitly state that their analysis of the Panel Study of Income Dynamics can shed no light on the measurement error in the directly reported hourly wage rate.[17]

Inequality of weekly wages

It is also useful to examine inequality trends in weekly wages, capturing the effects of changes in the distribution of both hourly wages and hours worked, as well as their interaction. Our finding that the inequality of weekly wages has grown persistently since 1979 adds to the array of evidence that wage inequality has continued to increase.

The trends in the inequality of weekly wages in the March CPS and in the Outgoing Rotation Group CPS are also presented in tables 1 and 2. In the March CPS, the inequality trends for weekly wages closely correspond to those for hourly wages (compare column four with columns one and two in table 1), suggesting that the inequality in weekly hours has not grown. In the data from the Outgoing Rotation Group CPS, however, inequality grew faster for weekly than hourly wages over the current business cycle (1989–96), intimating that the growth in inequality of hours played an important role in the 1990s, a finding that would be missed by focusing on hourly wages alone.

The "correct" metric

Because the Gini coefficient summarizes the shape of the entire earnings distribution in a single number, it is less revealing about the structure of earnings than is, say, a series of per-

Table 3. Decile cutoffs, all workers, 1973–96, Outgoing Rotation Group CPS

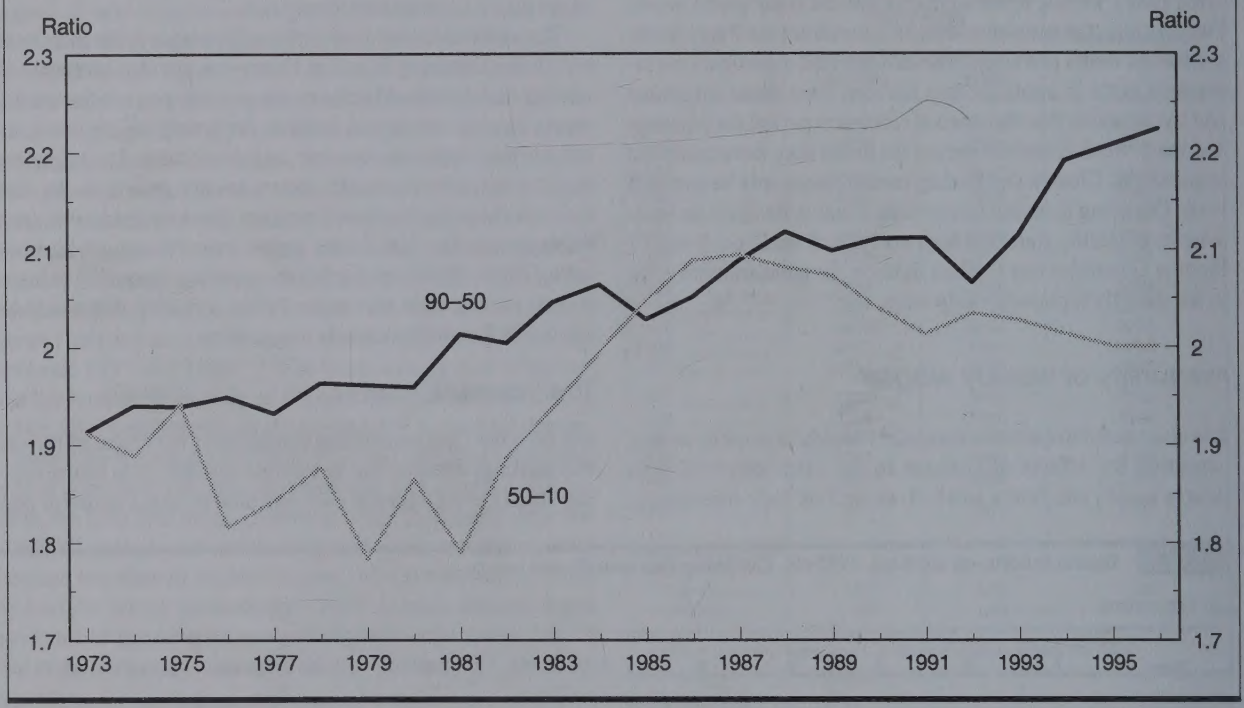
[In 1996 dollars]

Year	1	2	3	4	5	6	7	8	9	90–50	50–10	90–10
1973	5.93	7.16	8.51	9.90	11.35	13.02	15.12	17.28	21.72	1.914	1.912	3.660
1974	5.86	7.03	8.35	9.67	11.08	12.75	14.78	17.04	21.49	1.940	1.889	3.666
1975	5.71	6.97	8.24	9.57	11.09	12.92	14.62	17.03	21.51	1.939	1.942	3.766
1976	6.15	7.14	8.31	9.61	11.16	12.98	14.89	17.31	21.76	1.949	1.816	3.540
1977	6.08	7.05	8.23	9.57	11.22	12.88	14.94	17.66	21.66	1.932	1.843	3.561
1978	6.02	7.11	8.28	9.66	11.31	12.97	14.98	17.70	22.19	1.963	1.877	3.684
1979	6.28	7.17	8.41	9.90	11.20	12.97	15.34	17.88	21.96	1.961	1.784	3.497
1980	5.93	7.01	8.23	9.56	11.06	12.87	14.94	17.70	21.68	1.959	1.865	3.655
1981	6.02	6.87	8.18	9.34	10.77	12.74	14.85	17.52	21.69	2.013	1.791	3.605
1982	5.79	6.74	8.06	9.38	10.93	12.75	15.01	17.69	21.90	2.004	1.888	3.784
1983	5.61	6.61	7.90	9.25	10.87	12.67	15.17	17.58	22.24	2.046	1.938	3.965
1984	5.46	6.63	7.82	9.20	10.90	12.67	15.02	17.87	22.50	2.064	1.995	4.118
1985	5.37	6.69	7.87	9.22	10.98	12.80	14.91	17.98	22.27	2.028	2.047	4.151
1986	5.35	6.84	8.09	9.54	11.18	13.13	15.36	18.16	22.94	2.051	2.089	4.286
1987	5.33	6.77	8.09	9.58	11.16	13.27	15.27	18.15	23.31	2.089	2.095	4.377
1988	5.30	6.69	8.01	9.54	11.04	13.12	15.28	18.24	23.39	2.118	2.082	4.411
1989	5.27	6.56	7.87	9.40	10.93	12.76	15.18	18.16	22.93	2.099	2.073	4.352
1990	5.33	6.60	7.92	9.33	10.87	12.60	14.95	17.99	22.95	2.111	2.039	4.304
1991	5.40	6.62	7.90	9.23	10.87	12.58	14.80	17.78	22.96	2.112	2.013	4.252
1992	5.37	6.53	7.81	9.13	10.91	12.46	14.77	17.84	22.55	2.066	2.034	4.203
1993	5.32	6.49	7.77	9.13	10.78	12.61	14.85	17.92	22.80	2.115	2.027	4.288
1994	5.24	6.40	7.61	8.92	10.55	12.42	14.76	17.97	23.11	2.191	2.013	4.410
1995	5.21	6.37	7.61	8.96	10.43	12.34	14.71	17.81	23.01	2.207	2.001	4.416
1996	5.17	6.40	7.67	8.94	10.35	12.22	14.72	17.79	23.01	2.223	2.001	4.450
Annualized percent changes:[1]												
1973–79	.9	.0	–.2	.0	–.2	–.1	.2	.6	.2	.8	–2.1	–2.7
1979–89	–1.7	–.9	–.7	–.5	–.2	–.2	–.1	.2	.4	1.4	2.9	8.6
1989–96	–.3	–.3	–.4	–.7	–.8	–.6	–.4	–.3	.0	1.8	–1.0	1.4

[1] Annualized point differences multiplied by 100.

SOURCE: Authors' analysis of Outgoing Rotation Group CPS data. See David Webster, "Wage Analysis Computations," Appendix B, in Lawrence Mishel, Jared Bernstein, and John Schmitt, *The State of Working America, 1996–97* (Armonk, NY, M. E. Sharpe, 1997), for a description of methods.

Chart 3. **Overall wage inequality, 90–50 and 50–10 cutoffs, Outgoing Rotation Group CPS, 1973–96**



centile differentials—that is, ratios of percentile cutoffs (90–10, 90–50, 50–10, 75–25, and so forth). These differentials also have the advantage of not invoking the top-code problem, because analysts typically choose cutoffs—like the 90th percentile—below the top-code value.

To take advantage of the percentile differentials approach, however, it is important to observe the trend in different relative quantiles, and not simply the ratio of, for example, the ninth decile cutoff to the tenth. Table 3 (page 7) presents the full wage series from the Outgoing Rotation Group CPS for all workers, by decile cutoff over the 1973–96 period, computed using a smoothing technique to deal with the clustering of wage data at certain intervals.[18] As the bottom panel shows, the 90–10 ratio grows in the 1990s, but at a slower rate than in the 1980s. However, as chart 3 reveals, this trend is due to a pattern of wage growth in which the 50–10 ratio flattens and the 90–50 ratio accelerates. In other words, starting in the mid-1980s, those at the top of the wage scale continued to pull away from those in the middle, with middle- and low-wage workers faring comparably poorly. (That is, both suffered similar losses in real wages.) Table 4 shows the decile cutoffs from the Outgoing Rotation Group data for men and for women.

The decile cutoffs from the March CPS data for all workers show a similar pattern. (See table 5, page 10.) The 90–10 cutoff for all workers grew 1.3 points per year in the 1980s and then decelerated, increasing at less than half that rate in the 1989–96 period. The 50–10 cutoff ratio, after growing 1.1 points per year in the 1980s, was essentially flat in the 1990s. But, as in the data from the Outgoing Rotation Groups, the wage gap in the 90–50 ratio actually grew more rapidly over the 1989–95 business cycle.[19] Table 6 (page 11) shows the decile cutoffs for men and for women from the March CPS data.

Thus, we find continued, albeit slower, growth in the 90–10 differential in recent years, in both the March CPS and the Outgoing Rotation Group CPS. However, analyses that examine only the relative wage movements at the top and bottom of the earnings distribution (that is, the 90–10 ratio) miss important shifts in the character of the growth of inequality and, in particular, the continued strong growth in the 90–50 differential.

Conceptual choices in measurement

Two important issues regarding the most informative way to measure wage inequality have arisen in recent literature: weighting by hours compared with weighting by persons and combining data on men and women. As we have shown, the weighting procedure changes the levels, but not the trends, in wage inequality. Therefore, we will say little about this

Table 4. Decile cutoffs, male and female workers, 1973–96, Outgoing Rotation Group CPS

[In 1996 dollars]

Year	1	2	3	4	5	6	7	8	9	90–50	50–10	90–10
Male												
1973	7.00	8.99	10.59	12.14	13.76	15.60	17.17	19.76	25.17	1.828	1.966	3.594
1974	6.94	8.84	10.41	11.94	13.62	15.16	16.90	19.16	24.30	1.783	1.963	3.500
1975	6.74	8.58	10.25	11.94	13.62	15.11	16.93	19.66	24.34	1.787	2.020	3.610
1976	6.91	8.65	10.30	12.10	13.59	15.34	17.16	19.86	25.13	1.850	1.965	3.635
1977	6.81	8.53	10.27	12.11	13.74	15.34	17.59	19.98	24.81	1.806	2.017	3.643
1978	6.88	8.65	10.50	12.01	13.82	15.79	17.73	20.18	24.95	1.805	2.009	3.627
1979	6.91	8.78	10.56	12.28	14.06	15.96	17.91	20.80	25.35	1.803	2.035	3.669
1980	6.71	8.60	10.15	11.81	13.83	15.56	17.76	20.07	24.31	1.757	2.060	3.620
1981	6.52	8.38	10.06	11.78	13.55	15.50	17.52	20.16	24.70	1.823	2.079	3.790
1982	6.25	8.08	9.76	11.66	13.44	15.70	17.69	20.42	24.97	1.859	2.151	3.997
1983	6.03	7.79	9.46	11.42	13.26	15.54	17.51	20.23	25.42	1.917	2.198	4.213
1984	5.99	7.70	9.36	11.33	13.18	15.21	17.65	20.30	25.90	1.966	2.199	4.322
1985	5.95	7.63	9.42	11.35	13.28	15.20	17.75	20.59	26.09	1.964	2.231	4.383
1986	5.99	7.76	9.70	11.49	13.65	15.56	17.93	21.21	26.42	1.935	2.280	4.412
1987	5.98	7.81	9.63	11.35	13.54	15.33	17.70	20.86	26.97	1.993	2.262	4.508
1988	6.04	7.75	9.49	11.18	13.22	15.30	17.62	20.85	26.59	2.012	2.189	4.404
1989	6.03	7.56	9.27	10.98	12.78	15.04	17.40	20.38	25.53	1.998	2.118	4.231
1990	5.92	7.43	9.18	10.84	12.53	14.73	17.27	20.37	25.92	2.069	2.118	4.381
1991	5.77	7.28	9.01	10.65	12.42	14.50	17.13	20.15	25.69	2.068	2.151	4.449
1992	5.66	7.15	8.81	10.57	12.26	14.30	16.83	19.99	25.58	2.086	2.164	4.515
1993	5.60	7.16	8.71	10.60	12.10	14.19	16.64	19.89	25.75	2.129	2.162	4.601
1994	5.54	7.11	8.48	10.26	11.83	13.97	16.50	19.89	25.61	2.164	2.137	4.624
1995	5.65	7.14	8.49	10.20	11.97	13.98	16.43	19.64	25.61	2.140	2.118	4.534
1996	5.68	7.08	8.49	10.04	11.85	13.93	16.34	19.74	25.27	2.132	2.086	4.447
Annualized percent changes:[1]												
1973–79	–.2	–.4	–.1	.2	.4	.4	.7	.9	.1	–.4	1.2	1.2
1979–89	–1.3	–1.5	–1.3	–1.1	–1.0	–.6	–.3	–.2	.1	2.0	.8	5.6
1989–96	–.9	–.9	–1.3	–1.3	–1.1	–1.1	–.9	–.5	–.1	1.9	–.5	3.1
Female												
1973	4.94	6.13	6.90	7.71	8.69	9.78	11.02	12.70	15.71	1.807	1.760	3.181
1974	5.40	6.01	6.73	7.59	8.49	9.53	10.77	12.47	15.32	1.804	1.574	2.839
1975	5.21	5.96	6.76	7.61	8.53	9.57	10.88	12.78	15.52	1.819	1.638	2.979
1976	5.51	6.39	7.02	7.77	8.62	9.67	11.09	13.03	15.86	1.841	1.564	2.879
1977	5.75	6.32	6.93	7.74	8.65	9.72	11.17	12.95	16.05	1.856	1.503	2.790
1978	5.59	6.32	7.02	7.76	8.64	9.79	11.29	13.03	16.05	1.857	1.545	2.870
1979	5.99	6.49	7.06	7.87	8.83	10.04	11.20	13.02	16.25	1.840	1.474	2.712
1980	5.59	6.23	6.97	7.79	8.79	9.78	11.15	13.07	16.08	1.828	1.572	2.875
1981	5.78	6.25	6.88	7.77	8.71	9.81	11.07	13.15	16.49	1.893	1.507	2.853
1982	5.55	6.08	6.86	7.88	8.72	9.92	11.56	13.50	16.66	1.910	1.571	2.999
1983	5.38	5.95	6.84	7.82	8.83	9.94	11.66	13.66	16.95	1.920	1.640	3.149
1984	5.22	5.87	6.88	7.76	8.89	10.18	11.72	13.90	17.23	1.939	1.702	3.301
1985	5.10	5.85	6.96	7.82	8.91	10.36	11.94	14.36	17.77	1.994	1.746	3.481
1986	5.07	5.93	7.05	8.08	9.14	10.63	12.28	14.53	18.06	1.976	1.803	3.562
1987	5.00	5.96	7.02	8.13	9.35	10.73	12.51	14.79	18.36	1.962	1.873	3.675
1988	4.92	6.04	6.96	8.08	9.40	10.73	12.67	14.77	18.79	2.000	1.910	3.819
1989	4.90	6.04	6.99	8.03	9.34	10.67	12.56	15.06	18.90	2.024	1.904	3.854
1990	4.94	5.99	7.03	8.13	9.32	10.69	12.34	14.97	18.92	2.030	1.889	3.834
1991	5.01	5.96	7.01	8.15	9.31	10.84	12.56	15.00	19.22	2.065	1.857	3.835
1992	5.08	5.92	6.97	8.16	9.34	10.96	12.54	15.15	19.55	2.094	1.838	3.847
1993	5.08	6.00	7.02	8.18	9.39	10.90	12.91	15.54	19.70	2.097	1.847	3.874
1994	5.03	5.92	6.94	8.04	9.27	10.73	12.71	15.56	20.00	2.157	1.845	3.980
1995	4.98	5.94	6.95	7.99	9.18	10.58	12.57	15.36	19.73	2.150	1.842	3.960
1996	4.96	5.94	6.95	8.00	9.19	10.72	12.64	15.38	19.91	2.165	1.855	4.016
Annualized percent changes:[1]												
1973–79	3.3	1.0	.4	.3	.3	.4	.3	.4	.6	.5	–4.8	–7.8
1979–89	–2.0	–.7	–.1	.2	.6	.6	1.2	1.5	1.5	1.8	4.3	11.4
1989–96	.2	–.2	–.1	–.1	–.2	.1	.1	.3	.7	2.0	–.7	2.3

[1] Annualized point differences multiplied by 100.

SOURCE: Authors' analysis of Outgoing Rotation Group CPS data. See David Webster, "Wage Analysis Computations," Appendix B, in Lawrence Mishel, Jared Bernstein, and John Schmitt, *The State of Working America, 1996–97* (Armonk, NY, M. E. Sharpe, 1997), for a description of methods.

practice. The choice of weights simply depends on the question being asked. If one is interested in market demand alone, then weighting by hours is appropriate. In our opinion, however, because the issue of inequality is also a social issue, it is perhaps best thought of as between persons, and not hours.

The much larger conceptual issue, in terms of its importance in understanding inequality trends, is whether it makes sense to base conclusions about the growth of wage inequality exclusively on the combined wage distribution of men and women earners and to discount findings that earnings inequality has continued to increase among both men and women separately. We now turn to evaluating this choice.

First, it is true that the increase in wage inequality of the combined distribution is less than that of either men or woman separately. But this simply reflects the fact that there has been wage compression between men and women.[20] Accordingly, we must ask whether and when it makes sense to combine the genders in analyzing inequality, thereby taking account of increased gender equity.[21]

For a variety of reasons, labor market analysts across the various schools of thought have analyzed men's and women's labor market outcomes separately. To some, the special labor supply decisions of women (or at least, decisions generally different from those of men) and the rapid growth of women's labor supply necessitate a separate analysis. For example, women's labor force participation grew rapidly, from 44.7 percent in 1973 to 59.3 percent in 1996, whereas men's participation edged down slightly, from 78.8 percent to 74.9 percent. This large growth in women's share of the labor force means that measures of inequality among women, or among men and women combined, can be greatly affected by the character of the new workers, such as whether they are above or below average in terms of wages, skills, education, and experience. Other analysts believe that the existence and persistence of gender discrimination, as reflected in occupational and sectorial segregation resulting in the past and current wage gap between men and women, necessitate a separate analysis of the two. The bottom line, however, is that gender, for whatever reason, matters greatly in the labor market. This can be seen empirically by asking the question whether men and women should be pooled together in estimating wage equations. The answer is that one invariably rejects the hypothesis

Table 5. Decile cutoffs, all workers, 1975–96, March CPS

[In 1996 dollars]

Year	1	2	3	4	5	6	7	8	9	90–50	50–10	90–10
1975	4.91	6.47	7.87	9.39	11.11	13.14	15.49	18.26	23.18	2.086	2.264	4.723
1976	4.98	6.56	7.94	9.46	11.14	13.17	15.54	18.46	23.40	2.100	2.239	4.701
1977	4.98	6.55	7.97	9.51	11.27	13.17	15.41	18.62	23.68	2.102	2.263	4.758
1978	5.35	6.78	8.13	9.64	11.40	13.44	15.80	19.21	24.72	2.168	2.134	4.625
1979	5.34	6.83	8.20	9.77	11.40	13.21	15.79	19.37	24.72	2.170	2.134	4.630
1980	5.24	6.64	8.01	9.49	11.13	12.92	15.46	18.74	24.10	2.165	2.126	4.603
1981	5.04	6.47	7.86	9.23	10.74	12.71	15.23	18.59	23.93	2.228	2.131	4.749
1982	5.01	6.45	7.92	9.41	10.93	12.97	15.53	19.03	24.36	2.229	2.182	4.863
1983	4.95	6.35	7.85	9.32	10.90	12.99	15.35	18.91	24.38	2.236	2.202	4.925
1984	4.84	6.28	7.75	9.21	10.90	13.05	15.65	18.98	24.65	2.262	2.254	5.098
1985	4.82	6.32	7.81	9.22	11.01	13.21	15.84	19.22	24.87	2.260	2.282	5.157
1986	4.81	6.42	7.96	9.44	11.30	13.51	16.20	19.75	25.45	2.252	2.350	5.291
1987	4.79	6.49	8.05	9.53	11.38	13.45	16.22	19.86	25.49	2.240	2.374	5.319
1988	4.78	6.49	8.00	9.57	11.46	13.60	16.24	19.73	25.26	2.204	2.400	5.290
1989	4.79	6.46	7.89	9.57	11.42	13.52	16.17	19.75	25.28	2.214	2.386	5.281
1990	4.76	6.32	7.75	9.35	11.21	13.26	15.83	19.30	25.00	2.230	2.355	5.251
1991	4.74	6.26	7.66	9.31	11.08	13.24	15.73	19.31	24.75	2.234	2.339	5.224
1992	4.72	6.31	7.68	9.30	11.07	13.26	15.94	19.24	24.80	2.240	2.346	5.253
1993	4.65	6.26	7.61	9.21	10.95	13.07	15.73	19.25	25.09	2.292	2.353	5.394
1994	4.75	6.24	7.60	9.22	11.02	13.08	15.64	19.46	25.46	2.310	2.322	5.363
1995	4.67	6.18	7.60	9.20	10.95	13.04	15.79	19.34	25.33	2.312	2.348	5.429
1996	4.68	6.14	7.65	9.33	11.07	13.12	15.71	19.11	25.64	2.316	2.365	5.479
Annualized percent changes:[1]												
1975–79	2.1	1.4	1.0	1.0	.6	.1	.5	1.5	1.6	1.0	−1.5	−.5
1979–89	−1.1	−.6	−.4	−.2	.0	.2	.2	.2	.2	.2	1.1	1.3
1989–96	−.3	−.7	−.4	−.4	−.4	−.4	−.4	−.5	.2	.6	−.1	.5

[1] Annualized point differences multiplied by 100.

SOURCE: Economic Policy Institute analysis of March CPS. Sample comprises workers aged 18–64, including incorporated self-employed.

Table 6. Decile cutoffs, male and female workers, 1975–96, March CPS

[In 1996 dollars]

Year	1	2	3	4	5	6	7	8	9	90–50	50–10	90–10
Male												
1975	6.04	8.27	10.31	12.30	14.23	16.34	18.42	21.32	26.52	1.864	2.356	4.390
1976	6.09	8.24	10.26	12.33	14.27	16.27	18.65	21.70	26.89	1.884	2.342	4.413
1977	6.05	8.23	10.31	12.32	14.40	16.32	18.80	21.89	27.36	1.900	2.378	4.519
1978	6.29	8.32	10.40	12.41	14.36	16.72	19.35	22.47	28.10	1.956	2.282	4.464
1979	6.28	8.48	10.54	12.54	14.50	16.81	19.59	22.67	28.17	1.943	2.308	4.485
1980	6.01	8.13	10.05	11.89	14.03	16.41	18.96	22.35	27.56	1.965	2.336	4.590
1981	5.86	7.90	9.81	11.62	13.73	16.23	18.83	22.16	27.54	2.006	2.343	4.701
1982	5.69	7.78	9.68	11.60	13.81	16.12	19.08	22.39	28.22	2.043	2.428	4.962
1983	5.52	7.58	9.46	11.43	13.59	16.00	18.86	22.41	28.17	2.072	2.464	5.105
1984	5.37	7.47	9.30	11.35	13.73	16.24	18.89	22.24	28.26	2.058	2.557	5.261
1985	5.40	7.46	9.32	11.46	13.73	16.27	19.01	22.62	27.95	2.037	2.540	5.173
1986	5.49	7.51	9.51	11.66	13.91	16.57	19.51	23.02	29.06	2.090	2.533	5.293
1987	5.40	7.57	9.47	11.62	13.79	16.41	19.48	23.21	28.90	2.095	2.552	5.347
1988	5.45	7.66	9.52	11.59	13.85	16.35	19.33	22.86	28.97	2.091	2.543	5.318
1989	5.45	7.53	9.40	11.44	13.56	16.07	19.13	22.82	28.93	2.134	2.488	5.309
1990	5.40	7.26	9.08	11.13	13.20	15.60	18.52	22.24	28.60	2.167	2.442	5.292
1991	5.26	7.02	8.89	10.95	13.10	15.40	18.25	21.78	27.91	2.130	2.491	5.306
1992	5.24	6.93	8.77	10.73	12.93	15.38	18.28	21.45	28.00	2.166	2.469	5.347
1993	5.11	6.79	8.58	10.50	12.72	15.18	18.09	21.54	28.26	2.222	2.490	5.531
1994	5.22	6.89	8.73	10.56	12.68	15.14	18.10	21.78	28.79	2.270	2.428	5.513
1995	5.13	6.90	8.68	10.51	12.59	15.06	17.98	21.82	28.70	2.281	2.452	5.593
1996	5.12	6.94	8.76	10.64	12.62	14.99	17.94	21.67	29.00	2.298	2.464	5.662
Annualized percent changes:[1]												
1975–79	1.0	.6	.5	.5	.5	.7	1.6	1.5	1.5	1.1	–.5	.5
1979–89	–1.4	–1.2	–1.1	–.9	–.7	–.4	–.2	.1	.3	.9	.8	1.7
1989–96	–.9	–1.1	–1.0	–1.0	–1.0	–1.0	–.9	–.7	.0	1.1	–.1	.9
Female												
1975	4.02	5.41	6.41	7.36	8.39	9.58	11.06	13.11	16.36	1.949	2.090	4.073
1976	4.27	5.61	6.57	7.49	8.52	9.75	11.22	13.27	16.32	1.915	1.996	3.822
1977	4.55	5.83	6.75	7.75	8.86	10.12	11.72	13.95	17.68	1.996	1.948	3.888
1978	4.64	5.90	6.86	7.81	8.86	10.16	11.67	13.73	17.38	1.961	1.908	3.741
1979	4.79	6.03	6.92	7.86	8.93	10.22	11.71	13.59	17.43	1.951	1.867	3.643
1980	4.62	5.84	6.79	7.76	8.87	9.99	11.46	13.43	17.23	1.942	1.920	3.728
1981	4.47	5.75	6.64	7.65	8.73	9.96	11.28	13.39	16.98	1.944	1.953	3.796
1982	4.53	5.73	6.71	7.84	8.90	10.05	11.67	13.92	17.74	1.992	1.965	3.915
1983	4.47	5.66	6.73	7.86	9.06	10.15	11.86	14.17	18.11	1.998	2.028	4.053
1984	4.37	5.58	6.71	7.80	9.00	10.28	12.06	14.44	18.33	2.035	2.061	4.195
1985	4.36	5.54	6.77	7.89	8.99	10.41	12.27	14.74	18.72	2.082	2.063	4.296
1986	4.31	5.58	6.87	8.06	9.19	10.77	12.69	15.21	19.45	2.117	2.132	4.512
1987	4.36	5.68	6.93	8.17	9.41	10.91	12.92	15.52	19.95	2.121	2.158	4.576
1988	4.34	5.68	6.91	8.12	9.46	11.12	13.04	15.80	20.08	2.122	2.179	4.623
1989	4.31	5.74	6.98	8.12	9.53	11.14	13.16	15.85	20.48	2.149	2.209	4.747
1990	4.32	5.73	6.93	8.03	9.41	11.10	13.02	15.70	20.30	2.156	2.180	4.701
1991	4.39	5.70	6.86	8.03	9.47	11.04	13.11	15.79	20.31	2.144	2.156	4.624
1992	4.37	5.68	6.83	8.09	9.56	11.24	13.34	16.10	20.67	2.161	2.191	4.735
1993	4.32	5.63	6.77	8.11	9.57	11.19	13.22	16.14	20.72	2.165	2.216	4.797
1994	4.32	5.64	6.71	8.05	9.55	11.28	13.32	16.32	21.16	2.217	2.212	4.903
1995	4.24	5.63	6.77	8.06	9.54	11.22	13.29	16.37	21.17	2.218	2.249	4.989
1996	4.22	5.61	6.80	8.16	9.56	11.27	13.37	16.42	21.53	2.252	2.266	5.103
Annualized percent changes:[1]												
1975–79	4.5	2.8	1.9	1.6	1.6	1.6	1.4	.9	1.6	.0	–2.8	–2.8
1979–89	–1.0	–.5	.1	.3	.6	.9	1.2	1.6	1.6	1.0	1.7	2.7
1989–96	–.3	–.3	–.4	.1	.1	.2	.2	.5	.7	.7	.4	1.0

[1] Annualized point differences multiplied by 100.

SOURCE: Authors' analysis of March CPS. Sample comprises workers aged 18–64, including incorporated self-employed.

that the coefficients in a wage equation are the same for women as for men. (That is, the wage determination process is different for men and women.)

Consequently, we prefer to follow the conventional approach of measuring inequality separately for men and for women. A combined analysis, however, provides a useful reminder that the overall growth of wage inequality is less than the sum of the growth of wage inequality among men and women analyzed separately.

Our preferred approach, shown in charts 4 and 5, uses the 90–50 and 50–10 cutoff ratios from the Outgoing Rotation Groups of the CPS. The charts reveal a steady increase in inequality in the 90–50 cutoff since 1979 for both genders, although inequality has fallen slightly for men since 1994. The 50–10 differentials fell steeply for men and flattened for women in the late 1980s. In our opinion, these figures most accurately characterize the trend in earnings inequality over the 1980s and thus far into the 1990s.

Income and Program survey

A number of recent analyses of growth in inequality have turned to the Survey of Income and Program Participation, a longitudinal survey conducted by the Census Bureau.[22] In this section, we evaluate the advantages and disadvantages of that survey relative to the CPS. Our assessment is that the Outgoing Rotation Group CPS dominates the Survey of Income and Program Participation with regard to measuring hourly wage inequality, although the latter survey may have some advantages over the March CPS. This said, we present hourly wage inequality data from the Income and Program survey (computed by Peter Gottschalk) that appear to move much like those of the Outgoing Rotation Group presented earlier. That is, they show a continued growth of male wage inequality, as measured by the 90–10 differential, throughout the 1980s and a flattening in the 1990s. We do not know, however, whether inequality, as measured by the men's 90–50 differential, continued to increase in the mid-1990s in the Income and Program survey, as it has in the Outgoing Rotation Group survey, as we have seen no analysis of this measure with respect to the former survey.

Because respondents to the Income and Program survey are asked to recall their monthly earnings and usual (not actual) hours from each of the previous 4 months, recall bias in that survey may be smaller than in the March CPS, whose respondents are asked in March of a given year to recall their annual earnings from the previous year (along with annual weeks worked and usual weekly hours). But by this criterion, the best data set would be the Outgoing Rotation Group CPS, which focuses on the week prior to the survey. It seems to us that a respondent's ability to recall his or her earnings and hours 4 months ago should be notably worse than to do so for the previous week (although the Outgoing Rotation Group question on usual earnings and hours does not give an explicit time frame). Thus, by the criterion of recall bias, the Outgoing Rotation Group CPS dominates the Survey of Income and Program Participation. Finally, the sample sizes are far larger in the former than in the latter.

Lastly, it is important to know how well data from the Income and Participation Survey track other data on income and wages. For example, what is the trend in family income inequality in data from that survey relative to other data sets such as the March CPS and the Panel Study of Income Dynamics, both of which show increases in income inequality? How well do the Income and Program survey data match national totals on wages and salaries?[23]

Clearly, it is worthwhile to learn what the Survey of Income and Program Participation can tell us about the various trends in income and wages. Nevertheless, it is best to be cautious about claims based on an analysis of data from that survey until a broader evaluation is undertaken and the advantages and disadvantages of the survey relative to other data sources are adequately investigated.

The analysis most comparable to our work with the CPS is that by inequality analyst Peter Gottschalk, who has examined the change in the logarithm of the 90–10 ratio for the hourly wages of male workers aged 22 to 62 during 1983–93. Gottschalk's results, unpublished, are shown in the following tabulation (and graphed in chart 6, page 14):

Year and quarter	*Logarithm of wages*	*Year and quarter*	*Logarithm of wages*
1983, IV	1.298	1988, III	1.365
1984, I	1.299	1988, IV	1.374
1984, II	1.324	1989, I	1.423
1984, III	1.309	1989, II	1.428
1984, IV	1.327	1989, III	1.394
1985, I	1.351	1989, IV	1.372
1985, II	1.346	1990, I	1.399
1985, III	1.341	1990, II	1.389
1985, IV	1.357	1990, III	1.378
1986, I	1.360	1990, IV	1.403
1986, II	1.354	1991, I	1.421
1986, III	1.358	1991, II	1.407
1986, IV	1.376	1991, III	1.398
1987, I	1.400	1991, IV	1.399
1987, II	1.381	1992, I	1.398
1987, III	1.372	1992, II	1.396
1987, IV	1.396	1992, III	1.388
1988, I	1.392	1992, IV	1.396
1988, II	1.386	1993, I	1.377

Gottschalk's analysis is quarterly, and we have added a four-period moving average. The upward trend through the 1980s is evident, as is the flattening in the early 1990s. (The

Chart 4. **Male wage inequality, 90–50 and 50–10 cutoffs, Outgoing Rotation Group CPS, 1973–96**

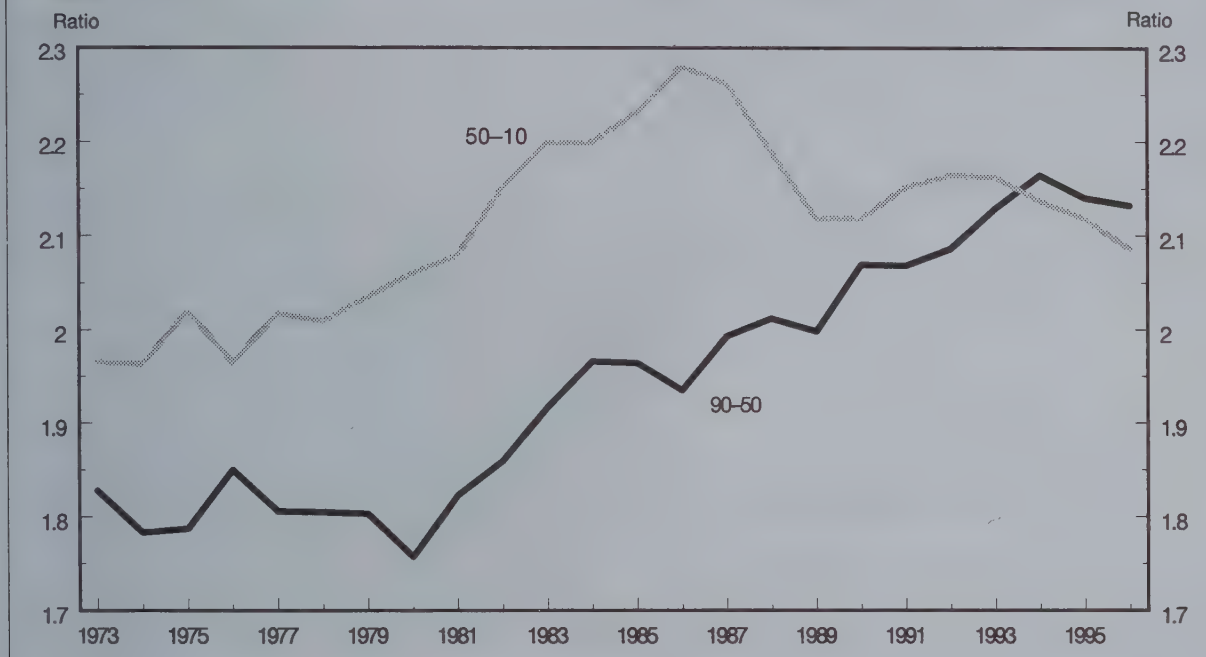


Chart 5. **Female wage inequality, 90–50 and 50–10 cutoffs, Outgoing Rotation Group CPS, 1973–96**

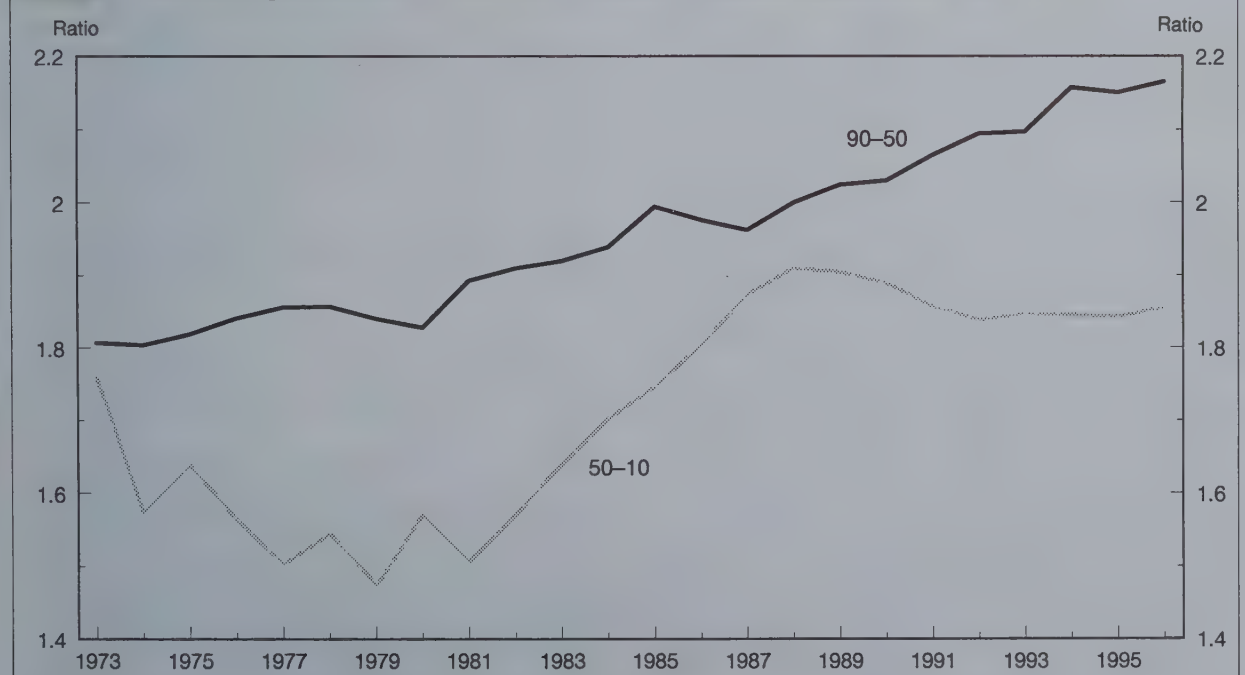
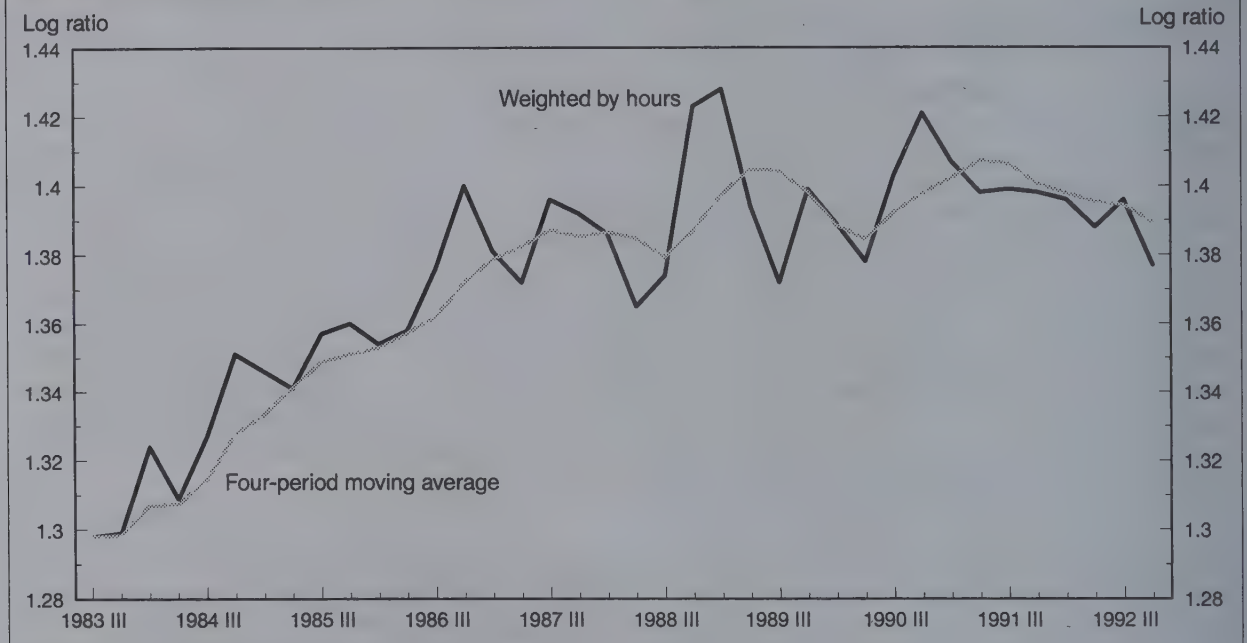


Chart 6. Logarithm of 90–10 cutoff ratio of hourly wage, men aged 22 to 62, Survey of Income and Program Participation, third-quarter 1983 through third-quarter 1992



SOURCE: Peter Gottschalk, unpublished; self-employment earnings not included.

data from the Outgoing Rotation Group CPS show a similar pattern in the 90–10 ratio for men; see table 4, page 9.) When we average the results for the years 1984–92, however, wage inequality among men increases by .08 logarithm point.

THE CONVENTIONAL WISDOM on the increase in wage inequality during the 1980s and 1990s has been formed by hundreds of papers that use various data sets (mostly the CPS). The analysis set forth in this article, using data from the March CPS and Outgoing Rotation Group CPS, as well as the Survey of Income and Program Participation (for men), supports the conventional wisdom: wage inequality did continue to grow in the 1990s.

Our conclusion is based on trends in both the Gini coefficient and relative wage quantiles. We show that, while the 90–10 wage ratio has risen, its growth rate significantly decelerated in the 1990s relative to the 1980s. However, the 90–50 differential grew and even accelerated in the 1990s. Likewise, the growth in the Gini coefficient applied to the March CPS data actually accelerated slightly in the 1990s. While a convincing benchmark of what constitutes a large increase in the Gini coefficient is elusive, we note that the increase in the Gini index for family income from 1979 to 1989 is widely considered to be "large." Over that period, this measure of inequality in family income grew 0.9 percent per year.[24] How does recent growth in wage inequality compare with this rate? Column three of table 1 (which truncates the top 2 percent of the distribution) indicates that wage inequality since the most recent business cycle peak has grown 0.6 percent annually, or two-thirds the rate of growth in family income inequality. Such growth cannot reasonably be dismissed as economically or socially insignificant.

The persistent rise in earnings inequality is an attribute of the nature of growth over the last few recoveries. This is particularly true of the current recovery, in which unemployment has stayed below 6 percent for more than 3 years. A large body of empirical research shows that the income distribution historically compresses over business-cycle expansions.[25] As the CPS data reveal, however, that clearly has not been the case in the last two recoveries.

In the current recovery, there is a unique aspect to the increase in wage inequality that was not the case over the 1980s: most of the growth in inequality in the 1990s has been among workers with similar characteristics, so-called within-group wage inequality. While a large share of the growth in inequality in the 1980s could be attributed to the well-documented growth in education differentials, particularly the college wage premium, this premium has been flat for men and has slowed for women in the 1990s. Thus, the recent increase in the 90–

50 differential, as well as in the Gini index, is mostly a result of growing within-group inequality.[26]

This pattern of inequality growth does not comport well with the oft-repeated description of an economy in which all are doing well except "less educated, less skilled workers." In fact, the flattening of the 50–10 differential reflects real wages falling less at the bottom than the middle over the period starting around 1987. Especially given that hourly wages fell among the bottom 80 percent of the work force over the 1989–96 period, the best description of the trend in wages during this period is that the wages of high-wage workers grew, while those of the rest of the work force flattened or declined.

Finally, while it is interesting to note that inequality in the combined distribution of men and women has risen more slowly than that of each gender separately, we consider this approach to obscure important differences. We take the more conventional viewpoint among labor market economists that the market forces which shape the wage determination process reflect important gender differences, including labor supply, industry and occupation placement, and discrimination. Nevertheless, the increase in wage inequality in the combined distribution has clearly been nontrivial. The interesting and important questions in inequality analysis—Who are the relative winners and losers? and What factors are driving the trends?—remain as compelling today as ever. □

Footnotes

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www.epinet.org

Click on "Datazone".

[1] See Frank Levy and Richard Murnane, "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations," *Journal of Economic Literature* (September 1992), pp. 1333–81.

[2] The Gini coefficient, or Gini index, is a conventional measure of inequality that ranges from zero when all earnings are shared equally to unity when one person has all the earnings in an economy. Along with other scalars, such as the log variance, the Gini index and relative wage percentiles are probably the most common techniques for measuring wage inequality. John Dinardo, Nicole Fortin, and Thomas Lemieux have introduced an innovative technique for examining changes in inequality through the use of kernel density estimators. (See John Dinardo, Nicole Fortin, and Thomas Lemieux, "Labor Market Institutions and the Distribution of Wages, 1973–1992: A Semi-Parametric Approach," *Econometrica* [September 1996], pp. 1001–44.)

[3] For an example of this type of truncation, see Lynn A. Karoly and Gary Burtless, "Demographic Change, Rising Earnings Inequality, and the Distribution of Personal Well-Being, 1959–1989," *Demography*, vol. 32, no. 3, 1995, pp. 379–405.

[4] Truncating the distribution above the necessary cutoff will lead to a downward bias in the growth of the Gini index in a period when the true earnings of workers with very high wages are rising relative to the wages of others. We find, for example, that the series of Gini coefficients for the bottom 98 percent of the earnings distribution has risen more quickly than that of the bottom 95 percent, particularly in the 1990s.

[5] Actually, we calculate Pareto-imputed means by gender; they are available from the authors.

[6] In our analysis of wages in this article, we exclude outlier cases, defined as cases wherein the hourly wage is less than $0.50 or greater than $100.00 in 1989 dollars.

[7] This statement is strictly true only for those workers with identical demographic weights. Our analysis in this article applies the CPS demographic weights.

[8] In an earlier version of this article, we used the bottom 98 percent of the *hourly wage* distribution. Here, our sample for this column comprises the bottom 98 percent of the *annual earnings* distribution.

[9] Also, top codes were raised over this period, but we impose the same top code ($99,999) as in earlier years for the sake of consistency.

[10] See Paul Ryscavage, "A Surge in Growing Income Inequality?" *Monthly Labor Review*, August 1995, pp. 51–61.

[11] *Ibid.*, p. 57.

[12] *Ibid.*, p. 60. Ryscavage finds an increase in the share of high earners in the 1993 March data with allocated earnings. Because there is a positive correlation between nonreporting and income levels, an increase in allocations among high earners should lead to a *downward* bias in inequality growth. (The Census Bureau allocates earnings using a "hot-deck" procedure that assigns the reported earnings value from a record with characteristics similar to those of the case with the missing value.)

The impact of the survey design change also was analyzed by Anne E. Polivka. (See her "Data Watch: The Redesigned Current Population Survey," *Journal of Economic Perspectives*, vol. 10, no. 3, pp. 169–80.) Although Polivka does not examine the effect of the design change on inequality specifically, she shows that the change had no significant effect on the overall unemployment rate.

[13] Note that the question on usual earnings for the Outgoing Rotation Group does not specify a period. The survey is, however, solely focused on the respondent's employment situation of the previous week. Thus, we are confident that responses to the usual-earnings question are correctly interpreted.

[14] Note that we do not use the Pareto procedure to impute the mean value of earnings above the top code in the data from the Outgoing Rotation Group, because, in this series, the earnings cutoff changes only once, in 1986, when it almost doubles. In that case, Pareto imputations would lead to implausible jumps in the year-to-year Gini index around the period of the change. This problem does not appear in the March CPS data, for which top codes are more frequently updated.

[15] See, for example, Willard L. Rodgers, Charles Brown, and Greg J. Duncan, "Errors in Survey Reports of Earnings, Hours Worked and Hourly Wages," *Journal of the American Statistical Association* (December 1993), pp. 1208–18. As we point out later, this critique also holds for the Survey of Income and Program Participation, in which workers are asked how many hours per week they *usually* worked at their job over the past month.

[16] Under the assumed pattern of bias, observed inequality could grow either because the bias worsened or because there was simply a larger relative share of high earners. Only in the former case, however, would the rising trend in inequality be misrepresentative. In their comparison of annual earnings and earnings from the usual pay period, Rodgers, Brown, and Duncan found that low earners tend to overreport, while high earners tend to underreport, their earnings. As the share of high earners rises, this pattern would have the effect of dampening inequality growth in data from the Outgoing Rotation Group survey relative to March CPS data.

[17] Rodgers, Brown, and Duncan, "Errors in Survey Reports," p. 1217.

[18] See David Webster, "Wage Analysis Computations," Appendix B, in

Lawrence Mishel, Jared Bernstein, and John Schmitt, *The State of Working America, 1996–97* (Armonk, NY, M. E. Sharpe, 1997). Prior to 1979, these data are derived from the May CPS.

[19] The Gini coefficient is more sensitive to transfers from the middle of the wage scale than are other scalars, such as the log variance, which is more sensitive to transfers from the bottom of the distribution. This may partially explain the similar acceleration in the Gini index and the 90–50 cutoff ratio in the 1990s.

[20] The ratio between the median female and the median male hourly wage was 0.63 in 1979 and 0.77 in 1995. (See Mishel, Bernstein, and Schmitt, *The State of Working America*.) Eighty-two percent of the narrowing of the gap over that period was due to a decline in the median male hourly wage.

[21] Note that, because women are paid less than men, aggregating the two groups increases the proportion of low-wage workers and, in turn, increases the variance of the distribution at a point in time. This effect can lead to increases in measures of overall inequality over time, due to growth in the labor force participation of women. A countervailing factor, however, is the compression of the gender gap.

[22] For example, Robert I. Lerman, *Reassessing Trends in Earnings Inequality in the U.S.* (Washington, DC, The Urban Institute, 1997), uses this survey as a series of cross sections.

[23] This question gets at the issue of underreporting, which may be systematic. Such comparisons are typically made for the CPS by the Census Bureau. (See, for example, Current Population Report, Series P–60, no. 172, *Money Income of Households, Families, and Persons in the United States: 1988 and 1989* [U.S. Department of Commerce, Bureau of the Census, 1991, pp. 385–91].)

[24] The preceding calculations use family Gini coefficients from table F-4 of the Census Bureau's World Wide Web site and take the Gini coefficient for earnings from table 1, column one, of the text of this article. Both of these statistics are derived from the March CPS.

[25] See Rebecca M. Blank and Alan S. Blinder, "Macroeconomics, Income Distribution, and Poverty," Sheldon Danziger and Daniel Weinberg , eds., in *Fighting Poverty: What Works and What Doesn't* (Cambridge, MA, Harvard University Press, 1986), for an example of work of this nature and for historical citations. A recent paper by Blank and David Card ("Poverty, Income Distribution, and Growth: Are They Still Connected?" *Brookings Papers on Economic Activity*, no. 2 [Washington, DC, Brookings Institution, 1993]), found that a 1-point fall in unemployment led to a gain in family earnings in the bottom quintile that was twice as large (in percentage terms) as the gain for the highest fifth.

[26] For evidence of this claim, see tables 3.24 and 3.25 in Mishel, Bernstein, and Schmitt, *The State of Working America*, in which growth in wage inequality is decomposed into within- and between-group components.

Reassessing trends in U.S. earnings inequality

Earnings inequality trends are sensitive to the earnings concept and sample of workers surveyed; the concept of the wage distribution across all hours worked yields virtually no change in inequality between the mid-1980s and mid-1990s for measures not influenced by top coding

Robert I. Lerman

Rising earnings inequality in the United States is conventional wisdom among economists, policy elites, and journalists. Over the past several years, an extensive literature has emerged that documents increases in earnings inequality and attempts to provide explanations of the phenomenon.[1] Richard Freeman has argued that "Researchers using several data sources—including household survey data from the Current Population Survey, other household surveys, and establishment surveys—have documented that wage inequality and skill differentials in earnings and employment increased sharply in the United States from the mid-1970s through the 1980s and into the 1990s."[2]

Recent publications reinforce the consensus that earnings inequality is continuing to increase. The 1997 *Economic Report of the President* points to growing inequality in annual earnings in trends among all male full-time, year-round workers, in the earnings ratios of college graduates to high school graduates, in the wage advantage of older to younger workers, and in the 90–50 and 50–10 cutoff ratios within groups classified by education (male high school graduates) and age (25- to 34-year-old men).[3] This past spring, the *Journal of Economic Perspectives* published a symposium of four articles; all cite a growth in earnings inequality over various periods, including the late 1980s and early 1990s.[4]

Much of the debate deals with the role of trade, foreign investment, and technology as major sources of increasing earnings inequality.[5] It is common to attribute part of the rising inequality to falling real minimum wages and declining unionization. The 1997 *Economic Report of the President* summarizes the experts' consensus on the contributing factors as follows: technological change (45 percent), international trade (12 percent), a decline in the real minimum wage (10 percent), a decline in unionization (10 percent), rising immigration (8 percent), and other causes (15 percent).[6]

The descriptions and diagnoses of U.S. trends in earnings inequality have exerted a great influence on debates over the minimum wage, trade agreements, labor law reform, and tax policies. The issue is highly relevant to controversies about rising inequality in family income in the Nation[7] and about the U.S. labor market model. A major critique of the operations of the U.S. labor market relative to those of European markets is that rapid job growth in the United States has come partly at the cost of rising earnings inequality.[8]

Despite the emphasis on market and institutional forces as explanations of rising wage inequality, researchers generally do not use a comprehensive measure of the distribution of purchases (and sales) of labor input as their indicator of inequality. Often, economists measure inequality as the distribution of annual earnings among full-time, year-round workers.[9] Studies frequently limit the sample to men, to full-time workers, or to groups within a restricted age range. Few estimate trends in the

Robert I. Lerman is professor of economics, American University, Washington, DC, and director, Human Resource Policy Center, the Urban Institute, Washington, DC.

overall labor market from the perspective of what employers pay for the distribution of labor input. This article argues that some commonly used measures may be appropriate for normative questions, but they are inappropriate for assessing how market and institutional forces combine to alter the *overall* distribution of quantities of labor input purchased at each price (wage).

Most studies rely on data on individual workers from household records, as reported by a responsible adult; some use summary data on groups of workers, as reported by employers. Recently, in examining administrative wage records reported by employers to State unemployment insurance agencies, Julia Lane, David Stevens, and I derived evidence on trends in three States that conflict with the conventional story of continuing increases in earnings inequality.[10] These wage records provide data on quarterly earnings, including base pay, bonuses, and commissions, for considerably more than 90 percent of workers. Using the universe of unemployment insurance wage records in three large States, we tabulated inequality in quarterly earnings (as measured by the Gini coefficient and the 90–10 cutoff ratio) in the third quarters of 1985 (one State only), 1988, 1991, and 1994. By these measures, inequality declined slightly (about 2 percent) in 2 of the 3 States; inequality rose less than 1 percent in the third State. Although the unemployment insurance data provide no information on hours worked and thus on trends in earnings per hour, they do yield accurate information about what employers pay. Certainly, this evidence garnered from employers' records is far from conclusive about trends in the United States or about trends in payment per hour; however, as far as I am aware, it is the *only* evidence drawn from employer records on the distribution of wages paid to a comprehensive sample of workers.

Stimulated by these findings, I decided to reassess trends based on household records from the perspective of the distribution of payments to all units of labor input. Accordingly, using measures that best capture such a perspective, this article shows that a good deal of the evidence is consistent with there being no change in the wage distribution after the mid-1980s and with the notion that only some data sets support the view of a continuing rise in inequality. A second finding is that trends in earnings inequality are highly sensitive to the earnings measure and to the sample of workers. The first two sections discuss concepts of wage inequality and alternative data sources used to measure these concepts. The third section presents evidence that overall wage rate inequality stopped rising after the mid-1980s. The final section cites several sources that reconcile the finding that there was no increase in overall wage inequality with the rising wage differentials between well-educated and less educated workers.

Concepts of earnings inequality

Measuring trends in earnings inequality involves choosing a concept of earnings, an accounting period, a sample of workers, an inequality index, a time span, and a data set. The choices depend on whether the focus is on equity or on explanations of labor market phenomena. If, for example, the concern is with the differences in the ability of working men to contribute to their households' living standards, then the appropriate concept is annual earnings of adult men. If the issue is differentials in the average return to education, then we may wish to measure average earnings by education category. However, if the analytical focus is on the combined role of trade, technology, immigration, and other market forces, then the emphasis should be on labor as an input in the production process, and the measure should be the distribution of payments per unit of labor. In this case, the appropriate earnings concept is compensation per hour across all hours worked in the economy.

A simple example illustrates the rationale for relying on wage rates when the focus is on the role of production processes. Suppose there is a change in the way an employer produces goods or services, causing the employer to use more labor input at the high end of the skill distribution. Suppose also that there are no other relevant changes. Then the distribution of hours purchased across wage rates would be more unequal, whether the increased quantity of high-skill, high-priced inputs came as two part-time workers or one full-time worker. However, the distribution of weekly or annual earnings across individuals might become more unequal if the added high-skill hours of labor provide part-time jobs for two workers.

The case for including all hours by all workers is that rising inequality within a subset of workers may well be consistent with no change in the overall distribution of labor input, because another group may have increased its share of jobs in the middle of the wage distribution. Suppose the question was whether technology was causing a change in the distribution of prices of another input, say, steel. In examining whether the distribution of steel prices was becoming more unequal, we would examine quantities of steel sold at each price during the base period and the current period. If we observed increases in the quantities purchased at the bottom and top tails of the steel price distribution and decreases in the middle part of the distribution, we would conclude that a rise in inequality took place. Note that the appropriate data would cover the entire quantity of steel sold in the relevant market; one would not limit the analysis to a single major steel supplier or calculate separately changes in the distribution of the prices of steel sold by the top four vendors, because steelmakers might have come to specialize in segments in the mar-

ket, and thus, the price distribution of quantities sold by each company may have become more equal at the same time that the overall distribution was becoming less equal.

The same logic should apply to combining hours supplied by male and female workers, younger and older workers, and full-year and part-year workers. Suppose that, despite changes in trade, technology, and migration, employers as a whole provided the same distribution of jobs and paid the same distribution of wages in the current year as in some prior year. Suppose, however, that at the same time, reduced discrimination against women or more rapid gains in human capital among women led to a shifting of positions between some male and female workers. Assume that some men receiving wages at the midpoint of the male wage distribution exchanged their jobs for positions held by women, which paid less than the average men's salary, but above the average women's salary. In this case, the employers would be hiring the same quantities of labor hours at each relative wage, yet wage inequality would have increased both among men and among women separately.

Thus, studies that draw implications about the role of forces like technology and trade on inequality should use the distribution of quantities of hours purchased by wage rate (or, equivalently, the distribution of wage rates weighted by hours purchased) among all workers. However, few studies use such an approach. A common concept employed is the annual earnings of full-time, year-round (50 or more weeks) workers.[11] This approach has a number of problems, the first of which is one of selection. Because limiting the sample to subsets of workers ignores part of the wage distribution, the results can yield misleading estimates of trends. Suppose, for example, that a smaller proportion of low-wage workers worked 50 or more weeks in 1984 than in 1994. In this case, earnings inequality could rise for the sample of year-round workers (but not necessarily for all workers) because the 1994 distribution would have included more of the bottom tail. Second, while the motivation for using only full-time, year-round workers is to focus on differences in pay per hour, restricting the sample in this way fails to take adequate account of differences in hours and how they vary with wage rates. In fact, variations in hours worked among full-time, year-round workers are large (about 18 to 20 percent of hours worked), and the correlation between wage rates and annual hours rose from 0.008 to 0.052 between 1984 and 1994; among men, the increase was from –0.057 to +0.018.[12] Third, the use of annual earnings with full-time, year-round workers as the unit of observation gives more weight to hours supplied by workers with relatively few hours worked than to workers with relatively many hours worked. For instance, those working 2,600 hours and those working 1,750 hours will have the same weight.[13]

The analysis presented in this article avoids these problems by measuring the distribution of wage rates across all hours worked and across all workers. With this concept, all amounts of labor input purchased and sold in the U.S. economy are represented; the weight attached to each hour of labor input is the same for all hours worked.

Data sources

To develop estimates of wage distributions throughout the United States, investigators usually turn to one of two sources of earnings data from the Current Population Survey (CPS). CPS questions posed in March of each year yield information on the previous year's earnings, weeks worked, and usual hours per week, while questions asked each month of one-quarter of the CPS sample cover usual weekly earnings and usual weekly hours on the worker's primary job. An alternative source is the Survey of Income and Program Participation. This survey requests information from each respondent on actual earnings, weeks worked, and hours worked in each of two jobs or in self-employment for each of the 4 months prior to each survey wave. By piecing together information on the same individuals for three or four waves, one can obtain annual data.

Neither of the data sets and related concepts are flawless. The CPS data based on usual weekly earnings and hours are problematic in principle and, apparently, in practice. The respondent is asked about *usual*, not actual, weekly earnings and hours on the primary job last week. For those paid by the hour, the interviewer asks how much the respondent earns per hour. No information is available on those working a second job or self-employment. Nor does the question specify a period during which these usual hours, earnings, or wage rates apply. Adding to these difficulties, beginning in 1994, the CPS questions on usual weekly earnings changed slightly to mention taxes explicitly, thus creating problems of comparability.

In an effort to validate self-responses to wage and earnings surveys by comparing person reports with earnings records by firms, Rodgers, Brown, and Duncan found that all person responses were subject to considerable measurement error (assuming that employer records revealed the true amounts of earnings and hours worked for a given employer).[14] However, person responses to the question about *usual earnings* per pay period correlated less with employer reports (0.456) than did responses to questions about annual earnings (0.78–0.79). In addition, person responses to a question about *usual hours worked per week* had only a 0.61 correlation with employer information. Comparisons of computed earnings per hour revealed the weakest performance for measures based on usual hours per week.[15]

With the annual CPS data, one can calculate average wage rates by dividing annual earnings by the product of usual hours worked per week (in those weeks actually worked) and weeks

worked during the calendar year. One theoretical problem with these data is that the average wage rates sometimes suppress differences in hours compensated within the year. For example, someone with two jobs (or one job and a self-employment business) might be paid $14 per hour for 1,000 hours and $8 for 1,000 hours. The annual data (reported correctly) would then show 2,000 hours purchased at $11 per hour, ignoring the large disparity between the two wage rates. In addition, the link between the questions on hours worked and those on weeks worked is potentially weak. We want to know the mean hours worked for all weeks in which the individual worked even a few hours (or was on vacation or sick leave); but a plausible interpretation of the question on hours would be to report the modal number of hours and not necessarily the mean number.

In practice, the calendar CPS data might be flawed because of the long recall period expected of respondents. Asking respondents to refer to their tax records may improve reporting of earnings, but not reporting of weeks worked or hours worked per week. Another problem is the rising proportion of earnings that must be imputed on the basis of a record-matching procedure. By 1993, about 22 percent of all persons with earnings had at least one item imputed; almost 30 percent of those with $100,000 or more in earnings had all or part of their earnings imputed by the Census Bureau.[16] The proportion of high earners with overall earnings imputed rose from 10.7 percent to 18.7 percent between the March 1987 and March 1995 surveys. For investigators working with public-use tapes, the CPS top coding also poses problems. Unfortunately, the Census Bureau did not raise the top codes on the worker's longest job between March 1985 and March 1995, so an increasing share of workers reported earnings at the CPS top code. As a result, adjustments for top coding take on increasing importance over time.

CPS procedures and questions have varied slightly in recent years, raising the possibility of problems of data comparability. In January 1994, a new computer-assisted survey information collection system replaced paper-and-pencil interviewing, allowing for the integration of the monthly and annual demographic surveys undertaken every March.[17] This method avoids any significant interruption of the interview process. Charles T. Nelson, a Census Bureau expert on income surveys, believes that the computer-assisted method stimulated more responses to earnings questions—especially from respondents with high-earning individuals in their households—and more reports of very high earnings.[18] In the March 1995 and March 1996 surveys, the question about the previous year's earnings changed slightly to specify explicitly that the respondent should report earnings before taxes. The former question asked for earnings before all deductions, but did not explicitly mention taxes. If workers from all income classes were equally likely to exclude taxes in earlier periods than in 1995 and 1996, the percent increase in earnings reported would have been higher among high-wage workers, because they pay higher tax rates and, thus, in previous years would have excluded a higher proportion of their gross earnings.

The CPS data used in this article come from the March surveys. Each worker's wage rate is derived as annual earnings (from wage and salary income, self-employment income, and farm income) divided by annual hours, the latter being the product of usual hours worked per week and weeks worked the previous year. Unless otherwise noted, adjustments for the top coding of earnings prepared by Jared Bernstein and Lawrence Mishel are used; these are based on the assumption of a Pareto distribution in the range near and above the top-code value.[19] The article also follows their approach of excluding outlying observations. The estimated distributions are the wage dispersions across all workers, weighted by hours worked.[20]

The data from the Survey of Income and Program Participation come from selected panels and waves of the core survey.[21] With those data, hourly wage and salary income can be obtained for each person for up to two jobs in each month. The wage rate for each job is equal to the hourly wage rate reported by those paid by the hour or the monthly wages divided by the product of weeks worked per month on the job and hours worked per week on the job. Each job-month is an observation. The estimates of the wage rate distribution are across all job-months, weighted by hours worked per job-month times the weight for each person. The results reported below are hourly earnings based on wage and salary income only; they exclude self-employment income.

The Survey of Income and Program Participation has several advantages over the CPS. The recall period for earnings and hours worked is only the previous 4 months, instead of the previous 12. As with the CPS weekly data, but not the CPS annual measure, Survey of Income and Program Participation respondents who are paid by the hour report their hourly wage rates. Unlike the question in the weekly CPS, the earnings question from the Survey of Income and Program Participation asks about actual earnings during a specific month, not usual weekly earnings over an unspecified period.[22] Also, unlike the weekly CPS, the Survey of Income and Program Participation collects separate information on earnings and hours worked for up to two jobs per month over the previous 4 months. Moreover, the survey permits one to cumulate hours worked by wage rates on the basis of individual job-months. Although annual data from this survey yield lower total wage and salary income than CPS annual data do, a much smaller share of the former's data than CPS data is based on imputed earnings.[23] Unlike the questions in both CPS's, the relevant questions in the Survey of Income and Program Participation remained the

same over the relevant period. Finally, the top codes in the latter survey are much higher than in the CPS, leaving far fewer cases requiring imputations of earnings and wage rates. One important disadvantage of the Survey of Income and Program Participation is that data collection began only at the beginning of 1984, whereas CPS microdata have been available since the mid-1960s. A second problem is that the survey question about working hours on each job asks respondents for usual weekly hours worked instead of actual hours worked. On the other hand, in all likelihood, recall problems of the type highlighted by Rodgers, Brown, and Duncan arise in both surveys. The Survey of Income and Program Participation oversamples low-income persons, the use of person weights derived by the Census Bureau permits tabulations that are nationally representative.

Measures of inequality

This article reports results based on two common indexes of inequality: the Gini index and the 90–10 cutoff ratio of deciles in the earnings distribution. The 90–10 ratio has the advantage of being a simple summary measure that is independent of reporting problems which often affect the extremes of the distribution. The Gini index is comprehensive in the sense that it takes account of earnings differences between every pair of individuals in the entire distribution. One interpretation of the Gini index is to take it as one-half the average difference in income between every two individuals, divided by the mean income. Unfortunately, incorporating the segments of the distribution in which earnings are top coded is problematic. For this reason, when CPS data are used, estimates based on the entire distribution are supplemented with estimates of Gini coefficients and 90–10 ratios based on the bottom 95 percent of the wage distribution. These estimates are not influenced by wage patterns of those subject to the top codes. By contrast, top coding is not a serious problem in the estimates from the Survey of Income and Program Participation, because its levels are set well above those in the CPS.

Results

Trends in the Gini coefficient and 90–10 ratios of the wage distribution across all hours worked in the economy appear in table 1 and charts 1 and 2. A good place to begin is chart 1, which displays the 90–10 ratios for data from the CPS and data from the Survey of Income and Program Participation. The CPS trends show a clear rise in inequality between 1980 and 1986, as other researchers have found. However, since 1986, the trend in the 90–10 ratio is essentially flat, with slightly lower levels in 1988 and 1991 and a slightly higher level in 1993. The ratio of wage rates at the 90th percentile relative to the 10th percentile was no higher in 1995 than in 1986. The trend of 90–10 ratios in the other survey's data is similarly flat over the 1986–95 period. The 90th percentile of paid hours remained about 4.2 times the 10th percentile of paid hours. The trends in Gini coefficients in chart 2 differ somewhat by data set and by top-coding procedure. As in chart 1, inequality based on the data from the Survey of Income and Program Participation rose 1 to 3 percent between 1983–84 and 1986–87, but then remained constant and even declined at the end of the period. As a result, the Gini coefficients based on this survey were no higher in 1995 than in the 1983–84 period. The trend in the CPS-based Gini coefficients is similar to the 90–10 trend through 1992. Inequality clearly rose from 1980 through 1985–86 and then remained constant through 1992. Between 1992 and 1993, the Gini coefficient based on the entire CPS and the top-code adjustment rose from 0.358 to 0.365, an increase of 2 percent, and then grew another 1.5 percent by 1995.

Table 1. Percent changes in Gini coefficient and 90–10 ratios by data set, sample, and period, 1979–95

Measure and years	CPS, all hours, top-code adjustment	CPS, bottom 95 percent of hours worked	Wage and salary data from Survey of Income and Program Participation
Gini coefficient:			
1979–95	10.3	6.6	—
1982–92	3.4	2.4	—
1986–92	.7	–.5	1.8
1992–95	4.0	2.4	–3.2
1986–95	4.6	1.8	–1.4
90–10 ratios:			
1979–95	11.7	9.3	—
1982–92	8.7	7.3	—
1986–92	–2.6	–2.2	.6
1992–95	2.4	1.6	–1.7
1986–95	–.2	–.6	–1.0

NOTE: Dash indicates percent change could not be calculated because survey did not exist before 1984.

SOURCE: Urban Institute tabulations from CPS data and from data from Survey of Income and Program Participation.

The rise in the CPS Ginis in the 1993–95 period is sensitive to the changes in the top 2.5 percent of earners and a somewhat higher percentage of wage rates, changes affected greatly by the adjustments for top coding. As noted earlier, changes in the data collection method starting in March 1993 and changes in the wording of the question on earnings starting in March 1994 may have influenced the estimated earnings among those at the top. The high and rising rates of imputed income at the highest levels of earnings (nearly 30 percent in 1993) add a further note of caution to findings so sensitive to imputations. Using estimates of the Gini coefficient on all but the highest paid 5 percent of hours worked avoids having to rely on imputations of earnings among those at the top, with-

out giving up a comprehensive inequality measure. The trend in these Gini coefficients is broadly similar to the overall trend, but with a much lower increase in inequality between 1992 and 1995. A summary of the percent changes in the Gini coefficient and 90–10 ratios over various periods appears in table 1. Note that the results vary by period, but nearly all the measures and data show little or no increase in inequality since 1986. The only indicator of growth in inequality of more than 2 percent since that year is the Gini index based on the full CPS sample, which requires earnings projections for the top 2.5 percent of hours worked. While this source and method are subject to bias and error, the results do provide evidence of continuing increases in inequality. On the other hand, tabulations based on all of the 90–10 ratios, the CPS Gini measures based on the bottom 95 percent of the distribution, and the Gini coefficients from the Survey of Income and Program Participation reveal little or no evidence of rising wage inequality since the mid-1980s.[24]

Most points in the wage rate distribution rose proportionately over the 1986–95 period, as measured by the CPS with top code adjustments. The ratios of wage rates of the 75th percentile relative to the 25th percentile, of the 50th to the 25th or to the 10th percentile, and of the 90th to the 50th percentile remained essentially constant, with three decreases and one increase, all of less than 1 percent.

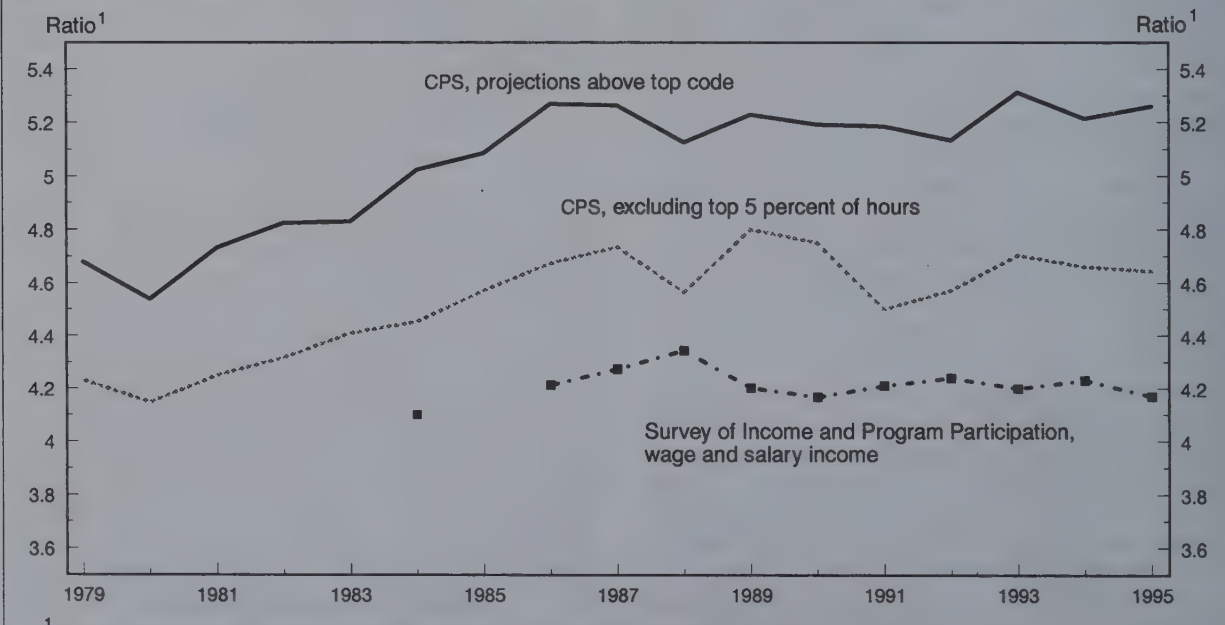
Relationship to other findings

Why do the results set forth in this article differ from those reported in other studies? Several explanations account for the differences. First, unlike other studies, the analysis presented here utilizes data from the Survey of Income and Program Participation. Second, no other study estimates inequality on the basis of the overall distribution of hours worked; rather, other studies limit the sample of workers, examine trends separately by sex, and use weekly or annual earnings instead of hourly earnings. Third, many studies use mean or median differences in earnings by education or work experience,[25] instead of calculating inequality across all workers.

Some studies that measure earnings as payments per hour or that include all workers (or both) also find no increases in inequality since the mid-1980s. Results cited in a report from the Organization for Economic Cooperation and Development based on hourly earnings show a slight decline in inequality between 1989 and 1992.[26] Tabulations by Robert Haveman show no increases in the inequality of wage rates between 1973 and 1988 or between 1988 and 1991.[27]

Trends in inequality turn out to be highly sensitive to the definition of earnings and the sample of workers used. Another publication from the Organization for Economic Cooperation and Development showed that, between 1979 and

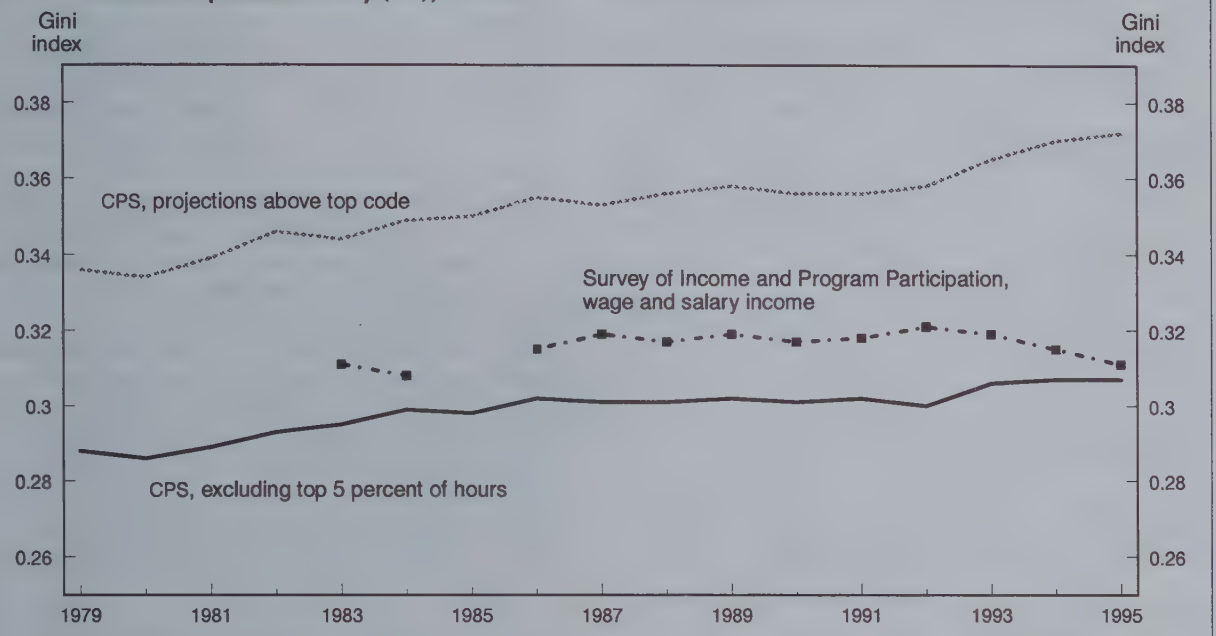
Chart 1. 90–10 ratios of wage rates for all hours worked, Survey of Income and Program Participation and Current Population Survey (CPS), 1979–95



[1] Ratio of the wage at the 90th percentile to the wage at the 10th percentile.

SOURCE: Special tabulations based on data from the Survey of Income and Program Participation and the Current Population Survey.

Chart 2. **Gini index for wage rates for all hours worked, Survey of Income and Program Participation and Current Population Survey (CPS), 1979–95**



SOURCE: Special tabulations based on data from the Survey of Income and Program Participation and the Current Population Survey.

1991, earnings inequality in the United States (as measured by the mean logarithm of the deviation) increased among full-time, year-round workers by nearly 18 percent, but fell by 1 percent among all workers and declined by 11 percent when measured across the working-age population.[28] This study noted that differences across countries in both the level and change in earnings inequality vary substantially by the measure employed. Table 2 provides details pertaining to the United States on the sensitivity of changes in inequality (based on the 90–10 ratios) to the sample of workers and the definition of earnings. All the data come from the CPS and utilize top-code adjustments. The percentage differences by measure vary from –27 percent to +13 percent. While wage rate inequality across all workers remained constant between 1986 and 1995, the 90–10 ratios rose for men and women separately. Inequality increases were highest among female and male full-time, year-round workers, but annual earnings among all workers and among prime-age workers (workers between 25 and 54 years) became more equally distributed. Measures that take account of changes in quantities of work supplied, as well as amounts paid per unit of work, show no increases in earnings inequality. Overall, the trends were toward more equalization among all workers than among men and women separately and among persons with any work schedules than among persons working full time, year round. The use of wage rates instead of annual earnings reduced the upward trend in inequality only among full-time, year-round workers separately by sex.

Wage inequality and educated workers

The evidence against the continuing increase in wage inequality is not necessarily inconsistent with the prevailing view of widening gaps in earnings by education. Considerable evidence suggests a rise in the differentials by education since the mid-1980s.[29] But three factors offset the impact of this rise on wage inequality.[30] First, the distribution of hours worked changed in the direction of equalization, mostly because of a shift from those with only a high school degree to those with some college. Second, the gender gap narrowed substantially between 1984 and 1995. Third, racial differentials in wage rates narrowed, especially among men. Analyses that examine the role of changes in between-group differences in overall inequality from 1984 to 1995 reveal that declining gender and race differentials offset the increase in education differentials, leaving no change in the between-group component of wage inequality.[31]

THIS ARTICLE CONTRIBUTES TO THE EXTENSIVE LITERATURE on earnings inequality in four ways. First, it explains that an appro-

Table 2. Sensitivity of changes in earnings inequality to definition of wages and sample of workers, 1986 and 1995

Wage definition and sample of workers	Inequality, as measured by 90–10 ratio, March Current Population Surveys		
	1986	1995	Percent change
Wage rate, weighted by hours worked:[1]			
All workers	5.27	5.26	–0.2
Men	5.30	5.57	5.1
Women	4.27	4.74	10.6
All workers, aged 25–54	4.75	4.85	2.2
Men, aged 25–54	4.44	4.92	10.2
Women, aged 25–54	4.11	4.45	7.8
All full-time, year–round workers, aged 25–64	4.34	4.60	5.8
Men, full time, year round, aged 25–64	4.42	4.80	8.2
Women, full time, year round, aged 25–64	3.75	4.03	7.3
Annual earnings, weighted by persons:[2]			
All workers	21.89	18.57	–16.5
Men	17.60	15.25	–14.3
Women	21.37	20.00	–6.6
All workers, aged 25–54	10.53	9.17	–13.8
Men, aged 25–54	6.80	6.77	–.4
Women, aged 25–54	13.75	10.50	–27.0
All full-time, year–round workers, aged 25–64	4.50	4.76	5.6
Men, full time, year round, aged 25–64	4.17	4.67	11.3
Women, full time, year round, aged 25–64	3.73	4.27	13.4

[1] The sample with wage rate weighted by hours worked excludes those with computed wage rates of less than $1 per hour and more than $100 per hour in 1989 dollars.

[2] The sample with annual earnings weighted by persons includes only those reporting at least $100 in 1986 dollars.

SOURCE: Tabulations from the March 1987 and March 1996 Current Population Surveys.

priate way to assess rising overall inequality associated with labor market forces is to calculate the distribution of wage payments across all hours worked in the economy. Including only part of the work force or measuring earnings across workers can involve problems of selection, limited coverage, or incorrect weighting of differential compensation to units of labor input.

Second, the article presents trends in wage inequality based on data from the Survey of Income and Program Participation and based on hours-weighted CPS data. The trends cast doubt on the prevailing view that increasing earnings inequality induced by labor market forces continued rising through the 1980s and into the mid-1990s. All of the measures not influenced by top coding—the 90–10 ratios, the Gini coefficients of the bottom 95 percent of the CPS wage distribution, and the Gini coefficients pertaining to the Survey of Income and Program Participation—show no rise in wage rate inequality over the entire distribution of hours purchased in the economy. In the case of the lone measure that did increase, all of the 1986–95 rise in inequality took place after 1992; the trend was flat between 1986 and 1992.

Third, the analysis shows that estimates of inequality trends are highly sensitive to definitions of earnings and to samples of workers. Earnings inequality decreased more than 20 percent by some measures, but increased more than 10 percent by other measures.

Finally, the article reconciles the constancy in overall inequality in the 1984–95 period with rising educational differentials. The offsetting factors were an equalizing trend in education and declining wage rate differentials between women and men and between blacks and whites.

Given these findings, economists should be cautious about their assessments of the impact on inequality of market and institutional forces in the United States. Earnings inequality did increase for some groups of workers, and some forces, such as trade and technology, may have affected overall inequality. However, according to several indicators, the combined effects of changes in demand, supply, and institutional forces over the last decade did not generate higher wage inequality in the U.S. labor market as a whole. □

Footnotes

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[1] See, for example, Frank Levy and Richard Murnane, "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations," *Journal of Economic Literature*, September 1992, pp. 1333–81; Chinhui Juhn, Kevin Murphy, and Brooks Pierce, "Wage inequality and the rise in returns to skill," *Journal of Political Economy*, June 1993, pp. 410–42; and Lawrence Katz and Kevin Murphy, "Changes in Relative Wages, 1963–87: Supply and Demand Factors," *Quarterly Journal of Economics*, February 1992, pp. 35–78. More recently, Katherine Bradbury, "The Growing Inequality of Family Incomes: Changing Families and Changing Wages," *New England Economic Review*, pp. 55–82, has found continuing increases in earnings inequality through the 1980s and on into the early 1990s.

[2] Richard Freeman, "Are your wages set in Beijing?" *Journal of Economic Perspectives*, Summer 1995, pp. 15–32.

[3] *Economic Report of the President: 1997* (Washington, DC, U.S. Government Printing Office, 1997).

[4] See the following articles from the spring 1997 issue of the *Journal of Economic Perspectives*: Peter Gottschalk, "Inequality, Income Growth, and Mobility," pp. 21–40; George Johnson, "Changes in Earnings Inequality: The Role of Demand Shifts," pp. 41–54; Robert Topel, "Factor Proportions and Relative Wages: The Supply-Side Determinants of Wage Inequality," pp. 55–74; and Nicole Fortin and Thomas Lemieux, "Institutional Changes and Rising Wage Inequality: Is There a Linkage?" pp. 75–96.

[5] The literature on the explanations of rising earnings inequality is extensive. On the impact of trade, for example, see Adrian Wood, *North–*

South Trade, Employment, and Inequality: Changing Fortunes in a Skill-driven World (Oxford, U.K., Clarendon Press, 1994); George Borjas and Valerie Ramey, "Foreign competition, market power, and wage inequality," *Quarterly Journal of Economics*, November 1995, pp. 1075–1l0; Edward Leamer, "Wage Inequality from International Competition and Technical Change," *American Economic Review*, May 1996, pp. 309–14; and Gary Burtless, "International Trade and the Rise in Earnings Inequality," *Journal of Economic Literature*, June 1995, pp. 800–16.

[6] *Economic Report of the President: 1997*, p. 175.

[7] For example, Gottschalk states, "It is clear that the countries with the largest increases in inequality—the United States and United Kingdom—were also the countries with the most decentralized wage setting institutions" (Gottschalk, "Inequality, Income Growth, and Mobility," p. 34).

[8] Organization for Economic Cooperation and Development, *OECD Employment Outlook* (Paris, OECD, July 1996), pp. 59–103.

[9] Peter Gottschalk and Timothy Smeeding, "Cross-National Comparisons of Earnings and Income Inequality," *Journal of Economic Literature*, June 1997, pp. 633–87.

[10] Julia Lane, Robert Lerman, and David Stevens, "Employers, Jobs, and the Dynamics of Earnings Inequality," unpublished manuscript, 1997.

[11] See Bradbury, "The Growing Inequality of Family Incomes"; *Economic Report of the President: 1997*; and Gottschalk and Smeeding, "Cross-National Comparisons." As the latter put it, "Almost all studies of the United States use the Current Population Survey to examine the distribution of weekly or annual wages for males. In order to concentrate on changes in wages and not changes in hours worked, most studies select only persons working full-time and full-year" (p. 645). In another article, Gottschalk examines weekly earnings using a sample of full-time workers, aged 22 to 62, who were in the labor force at least 39 weeks, were neither self-employed nor working without pay, worked at least 1 week, and were not individuals who worked only part of the year because they went to school or retired or were in the military" (Gottschalk, "Inequality, Income Growth, and Mobility").

[12] I calculated these figures from the March 1985 and March 1995 Current Population Surveys.

[13] The method used recently by Gottschalk ("Inequality, Income Growth, and Mobility") estimates the distribution of weekly earnings of full-time workers, aged 22 to 62, with at least 1 week of work and 39 weeks in the labor force. This measure ignores differences in hours within the full-time group and ignores part-time workers. By using workers as the unit of observation, the approach implicitly attaches a higher weight to those weeks worked by part-year workers than those worked by full-year workers. And, as noted in the previous paragraph, selection problems might bias the estimates of trends.

[14] Willard L. Rodgers, Charles Brown, and Greg J. Duncan, "Errors in Survey Reports of Earnings, Hours Worked and Hourly Wages," *Journal of the American Statistical Association*, December 1993, pp. 1208–18.

[15] Although the questions tested in the study by Rodgers, Brown, and Duncan are not exactly the questions asked in the CPS monthly surveys, they are close enough to raise questions about their accuracy, especially relative to questions based on actual earnings in a particular period.

[16] Paul Ryscavage, "A surge in growing income inequality?" *Monthly Labor Review*, August 1995, pp. 51–61.

[17] *Ibid.*

[18] Personal communication, Dec. 8, 1997.

[19] Jared Bernstein and Lawrence Mishel, "Has wage inequality stopped growing?" this issue, pp. 3–16. For a more detailed treatment of top codes, see John Angle and Charles Tolbert, "Topcodes and the Great U-Turn in Nonmetro/Metro Wage and Salary Inequality," technical bulletin, Economic Research Service, forthcoming.

[20] A small number of observations with computed wage rates below $0.50 per hour or above $100 per hour in 1989 dollars are excluded. The total weight is equal to the person weight times the annual hours of the person.

[21] This article uses the March 1979–96 CPS files and the 1984, 1987, 1988, 1991, 1992, and 1993 panels from the Survey of Income and Program Participation. In general, data from this survey cover wage rate distributions during February through August of each year.

[22] Evidence indicates that questions about actual earnings in a specified period yield more accurate information than questions about usual earnings over an unspecified period. (See Rodgers, Brown, and Duncan, "Errors in Survey Reports.")

[23] Denton Vaughan, *Reflections on the Income Estimates from the Initial Panel of the Survey of Income and Program Participation (SIPP)*, Studies in Income Distribution, no. 17 (Social Security Administration, Office of Research and Statistics, May 1993).

[24] The difference in the estimates of inequality between the two surveys is noteworthy. However, an analysis of the situation is beyond the scope of this article.

[25] See, for example, John Bound and George Johnson, "What Are the Causes of Rising Wage Inequality in the United States?" *Economic Policy Review*, January 1995, pp. 18–25.

[26] Organization for Economic Cooperation and Development, *OECD Employment Outlook* (Paris, OECD, July 1996), pp. 59–103; see especially p. 103.

[27] Robert Haveman, *Earnings Inequality: The Influence of Changing Opportunities and Choices* (Washington, DC, American Enterprise Institute for Public Policy Research, 1996).

[28] Organization for Economic Cooperation and Development, *OECD Economic Outlook* (Paris, OECD, December 1996), pp. 36–42.

[29] See Robert I. Lerman, "Meritocracy without Rising Inequality? Wage Rate Differences Are Widening by Education and Narrowing by Gender and Race," in *Economic Restructuring and the Job Market*, no. 2 (Washington, DC, The Urban Institute, September 1997); and Johnson, "Changes in Earnings Inequality."

[30] Lerman, "Meritocracy without Rising Inequality?"

[31] *Ibid.*

Worker displacement in an expanding economy

As the economy grew in the mid-1990s, job loss declined and the rate of reemployment rose; job losses that did occur were more widely dispersed across industries and occupations than in earlier years

Steven Hipple

Following the 1990–91 recession, labor market conditions were unusually sluggish compared to earlier recoveries. However, as economic activity accelerated in 1993, and especially in 1994, the job market improved, with the result that both the level and risk of job displacement fell during the mid-1990s.

Between 1993 and 1994, 2.4 million workers permanently lost jobs they had held for at least 3 years because their plant or company closed down or moved, there was insufficient work for them to do, or their positions or shifts were abolished.[1] By comparison, 2.8 million long-tenured workers were displaced during 1991–92, a period of slower economic growth.[2] The displacement rate, which reflects the likelihood of job loss during specific periods, fell from 3.9 percent during 1991–92 to 3.2 percent during 1993–94.[3] (See table 1.)

This article examines the recent experience of job loss and reemployment, using data from the BLS surveys of displaced workers.[4] For the following analysis, 2 years of data from each of the displaced worker surveys were used to construct a time series that begins with the 1981–82 period (from the 1984 survey) and ends with the 1993–94 period (from the 1996 survey); particular emphasis is placed on results from the last two studies. (See appendix A for a description of the displaced worker surveys.) The analysis focuses on workers who lost jobs they had held for at least 3 years, under the assumption that these long-tenured workers have developed a more-than-marginal attachment to their jobs.

Steven Hipple is an economist in the Division of Labor Force Statistics, Bureau of Labor Statistics.

Demographics

Compared with the early 1990s, the risk of job loss in 1993–94 was lower for nearly every major demographic group. While men continued to comprise a majority of the displaced (about three-fifths in 1993–94), their share has fallen since the early 1980s; this reflects a decline in the proportion of displacement occurring in durable goods industries, in which a large majority of employees are men. Furthermore, since the early 1980s, women have continued to increase their presence in the work force while continuing to be concentrated in service-producing industries, in which the risk of losing a job has increased.

With displacement rates of 3.5 percent, blacks and Hispanics had about an equal likelihood of being displaced as whites (3.2 percent). (See table 1.)

Educational attainment. In terms of overall labor market success, workers with higher levels of educational attainment fare considerably better than their counterparts with less education. For example, during 1993–94, workers aged 20 and older with less than a high school diploma were 4 times as likely as college graduates to be unemployed.[5]

The following tabulation shows reemployment rates[6] and displacement rates for long-tenured displaced workers by educational attainment. More than 8 in 10 displaced workers with a college degree were reemployed in February 1996, compared with about 7 in 10 of their counterparts with less than a high school diploma.[7]

	1993–94	
	Reemployment rate	*Displacement rate*
Total, 20 years and older	78.5	3.2
Less than a high school diploma	70.8	2.5
High school graduates, no college	75.2	3.0
Some college, no degree	77.2	3.9
Associate degree	86.0	4.7
College graduates	83.2	2.9

Surprisingly, the displacement rate over the 1993–94 period was actually slightly *higher* for college graduates than for those with less than a high school diploma. This anomaly can be partially explained by the age profile and occupational concentration of each group. For example, workers with less than a high school diploma were more likely than college graduates to be older (aged 55 and older), and older workers in general have a slightly lower-than-average risk of displacement. Conversely, a large proportion of college graduates—8 in 10—were aged 25 to 54, compared to about half of those with less than a high school education. Workers in this age group have a slightly higher-than-average risk of losing their jobs.

Another factor that could explain the relatively low displacement rate among high school dropouts is their occupational concentration. Although a large share (more than one-half) of these workers hold blue-collar jobs, which have above-average displacement rates, nearly one-fourth work at service jobs, in which the risk of job loss is very low.[8] (See table 2.) A very large proportion of college graduates (9 in 10) are concentrated in white-collar occupations; the displacement rate for workers in this occupational category was the same as that for all workers during the 1993–94 period—3.2 percent.

This analysis describes differences between displacement rates among less educated and more educated workers using basic cross-tabulations. However, the causes of variation in displacement rates between any two groups of workers (for example, men and women, whites and blacks) can be very complex. The groups may differ in terms of demographics, occupational and industry concentration, tenure with the employer, work schedules, and so forth.[9]

Industry and occupation

Industry. Although the total number of displaced workers fell during the 1993–94 period, a broader range of industries was represented than in previous surveys. During the early 1980s, for example, more than three-fifths of all displaced workers were in goods-producing industries—mining, construction, and manufacturing. By the mid-1990s, this proportion had declined to less than two-fifths. In contrast, within the service-producing sector, the share of job loss attributable to the growing services industry doubled from 9 percent in 1981–82 to 18 percent in the 1993–94 period. The decrease in the proportion of job loss arising in goods-producing industries

Table 1. Displacement rates[1] for long-tenured workers by age, sex, race, and Hispanic origin, 1981–94

[Percent]

Characteristic	1981–82	1983–84	1985–86	1987–88	1989–90	1991–92	1993–94
TOTAL							
Total, 20 years and older	3.9	3.1	3.1	2.4	3.1	3.9	3.2
20 to 24 years	4.0	2.0	1.8	2.0	2.2	2.0	2.3
25 to 54 years	4.0	3.3	3.3	2.5	3.1	3.9	3.4
25 to 34 years	5.0	3.9	3.5	2.5	3.1	3.9	3.4
35 to 44 years	3.8	3.1	3.3	2.7	3.2	4.0	3.4
45 to 54 years	3.0	2.6	3.0	2.2	3.1	3.9	3.4
55 years and older	3.6	3.1	2.9	2.2	3.1	4.4	3.0
55 to 64 years	3.8	3.1	3.0	2.3	3.3	4.5	3.0
65 years and older	3.2	2.9	2.3	1.9	2.4	3.8	3.1
Men, 20 years and older	4.3	3.2	3.3	2.4	3.2	4.1	3.3
Women, 20 years and older	3.4	2.9	2.8	2.4	2.8	3.5	3.1
White							
Total, 20 years and older	3.8	3.1	3.1	2.4	3.0	3.8	3.2
Men	4.2	3.2	3.3	2.4	3.2	4.1	3.3
Women	3.3	2.9	2.8	2.4	2.8	3.4	3.1
Black							
Total, 20 years and older	4.8	3.9	3.4	2.0	3.5	3.8	3.5
Men	5.3	4.0	4.1	1.6	3.9	3.9	4.1
Women	4.3	3.8	2.6	2.4	3.2	3.7	2.9
Hispanic origin							
Total, 20 years and older	4.3	3.9	3.9	2.9	4.3	4.7	3.5
Men	4.3	3.9	4.1	2.6	4.1	5.2	3.9
Women	4.4	3.8	3.5	3.3	4.7	3.8	3.0

[1] See text footnote 3 for an explanation of the displacement rate calculation.

NOTE: Data beginning with those for the 1991–92 period are not strictly comparable with data for earlier years. See appendix A for details.

Table 2. Displacement rates[1] for long-tenured workers by industry, class of worker, and occupation of lost job, 1981–94

[Percent]

Characteristic	1981–82	1983–84	1985–86	1987–88	1989–90	1991–92	1993–94
Total, 20 years and older	3.9	3.1	3.1	2.4	3.1	3.9	3.2
Industry and class of worker							
Nonagricultural private wage and salary workers	5.3	4.2	4.3	3.2	4.1	5.1	4.2
Mining	13.6	9.2	17.8	6.1	10.0	7.4	7.1
Construction	7.6	5.5	7.0	4.2	5.9	8.4	4.2
Manufacturing	8.2	6.5	5.2	3.9	5.0	7.1	5.7
Durable goods	9.3	7.0	5.8	4.0	5.1	8.4	6.2
Nondurable goods	6.4	5.6	4.1	3.7	4.9	5.2	5.0
Transportation and public utilities	4.1	3.8	3.1	1.8	3.6	4.4	4.2
Wholesale and retail trade	3.7	3.1	4.3	3.6	3.9	4.7	4.4
Finance, insurance, and real estate	1.4	1.3	3.5	2.8	3.5	5.5	4.5
Services	2.3	2.1	2.3	1.7	2.1	2.9	2.7
Agricultural wage and salary workers	5.4	9.7	4.1	2.5	3.2	3.8	3.3
Government workers	1.2	.6	.4	.4	.4	1.1	1.2
Self-employed and unpaid family workers[2]	.2	.1	([3])	.3	.2	([3])	([3])
Occupation							
White-collar occupations[4]	2.6	2.1	2.6	2.1	2.7	3.7	3.2
Managerial and professional specialty	2.1	1.8	2.1	1.8	2.3	3.6	2.9
Executive, administrative and managerial	2.5	2.4	2.8	2.5	3.4	4.8	3.4
Professional specialty	1.7	1.2	1.4	1.1	1.3	2.4	2.3
Technical, sales, and administrative support	3.0	2.4	3.1	2.5	3.1	3.7	3.6
Technicians and related support	3.3	2.9	3.0	2.2	3.2	3.7	3.3
Sales occupations	3.7	2.8	3.2	2.7	2.9	3.6	3.4
Administrative support, including clerical	2.5	2.0	3.1	2.4	3.2	3.8	3.8
Service occupations	2.0	1.8	1.9	1.5	1.6	2.1	1.7
Protective services	1.3	1.9	.5	.6	1.2	.8	.6
Other service occupations	2.1	1.7	2.2	1.6	1.7	2.3	2.0
Blue-collar occupations[4]	7.3	5.7	4.7	3.3	4.5	5.3	4.2
Precision production, craft, and repair	6.2	4.5	3.9	2.7	4.2	5.1	3.3
Mechanics and repairers	4.8	3.8	2.1	2.1	3.4	3.7	3.3
Construction trades	5.3	4.0	4.1	2.4	4.2	5.5	2.2
Other precision production occupations	8.5	5.6	5.5	3.7	5.1	6.4	4.6
Operators, fabricators, and laborers	8.2	6.7	5.5	3.8	4.8	5.5	4.9
Machine operators, assemblers, and inspectors	9.6	8.1	5.9	4.5	6.2	6.7	5.4
Transportation and material moving occupations	5.7	3.7	4.8	3.1	3.6	4.1	4.1
Handlers, equipment cleaners, helpers, and laborers	8.0	7.6	5.2	3.0	3.0	4.9	5.2
Farming, forestry, and fishing	.9	2.1	1.6	.8	1.5	1.4	.8

[1] See text footnote 3 for an explanation of the displacement rate calculation.

[2] Data beginning with those for the 1991–92 period refer to unpaid family workers only.

[3] Less than 0.05 percent.

[4] See text footnote 8 for a definition of white- and blue-collar occupations.

NOTE: Data beginning with those for the 1991–92 period are not strictly comparable with data for earlier years. See appendix A for more details.

over the past decade is a result of both a reduction in the share of total employment found in these industries and a decline in the likelihood of displacement among these industries.

As the economy recovered from the effects of the 1990–91 recession, the risk of displacement decreased for every private industry sector. (See table 2.) While the displacement rate for workers in mining (7.1 percent) declined slightly during the mid-1990s, workers in this industry still had the highest risk of job loss. Workers in manufacturing also continued to be at greater-than-average risk, although their displacement rate fell from 7.1 percent in 1991–92 to 5.7 percent in 1993–94. Reflecting the strength of the housing sector, the displacement rate for construction workers (4.2 percent) fell sharply during the mid-1990s.

While they remain less likely than good-producing workers to lose their jobs, the risk of displacement for workers in service-producing industries has been rising gradually. For example, during the early 1980s, the displacement rate for the finance, insurance, and real estate industry was the lowest (1.4 percent) of all the industries in the service-producing sector; by the mid-1990s, the rate for this industry was the highest in the sector (4.5 percent).

In the most recent survey, displacement rates for wholesale and retail trade (4.4 percent) and for transportation and public utilities (4.2 percent) were close to those recorded in the 1991–92 period. Workers in services, which includes industries such as business services and professional services, were least likely to have lost their jobs. Their displacement rate (2.7 percent) in the February 1996 survey was not much different from that found in the previous survey.

Occupation. Since the early 1980s, the proportion of job loss made up of white-collar workers has risen. In the 1981–82 period, for example, white-collar workers accounted for less than

Table 3. Long-tenured displaced workers[1] who lost jobs in 1993 or 1994 by age, sex, and reason for job loss

[Numbers in thousands]

Age and sex	Number of displaced workers	Percent distribution by reason for job loss		
		Plant or company closed down or moved	Insufficient work	Position or shift abolished
Total, 20 years and older	2,445	46.1	24.1	29.8
20 to 24 years	73	[2]	[2]	[2]
25 to 54 years	2,003	44.5	25.0	30.5
25 to 34 years	597	45.2	33.2	21.6
35 to 44 years	797	43.0	21.1	36.0
45 to 54 years	609	45.6	22.3	32.0
55 years and older	369	50.1	19.0	30.9
55 to 64 years	277	47.7	17.7	34.7
65 years and older	91	57.1	23.1	19.8
Men, 20 years and older	1,417	44.2	25.4	30.5
Women, 20 years and older	1,028	48.7	22.4	28.9

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

Table 4. Long-tenured displaced workers[1] by age, sex, race, Hispanic origin, and employment status in February 1996

[Numbers in thousands]

Age, sex, race, and Hispanic origin	Number of displaced workers	Percent distribution by employment status in February 1996		
		Employed	Unemployed	Not in the labor force
Total, 20 years and older	2,445	78.5	7.3	14.2
20 to 24 years	73	[2]	[2]	[2]
25 to 54 years	2,003	83.5	7.1	9.5
25 to 34 years	597	84.5	4.5	11.0
35 to 44 years	797	82.8	8.9	8.3
45 to 54 years	609	83.4	7.2	9.5
55 years and older	369	54.3	5.8	39.9
55 to 64 years	277	61.4	7.2	31.4
65 years and older	91	33.4	1.1	65.5
Men, 20 years and older	1,417	81.3	8.5	10.2
Women, 20 years and older	1,028	74.7	5.6	19.7
White				
Total, 20 years and older	2,094	78.9	6.7	14.4
Men	1,227	82.2	7.7	10.1
Women	868	74.2	5.3	20.5
Black				
Total, 20 years and older	273	74.2	11.8	14.0
Men	158	74.2	13.5	12.2
Women	116	74.1	9.4	16.5
Hispanic origin				
Total, 20 years and older	212	75.5	10.9	13.6
Men	144	82.8	7.2	10.0
Women	68	[2]	[2]	[2]

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented, and Hispanics are included in both the white and black population groups.

two-fifths of the total job loss; by the 1993–94 period, their share had increased to three-fifths. This rise reflects the increase in the proportion of employment composed of white-collar workers, and can, in part, be explained by the link between industries and occupations. Specifically, the share of total employment found in service-producing industries has increased from 64 percent in the early 1980s to 70 percent in the mid-1990s. Because white-collar workers make up a large proportion (two-thirds) of employment in these industries, their likelihood of experiencing job displacement has risen since the early 1980s.

Compared to the 1991–92 period, the risk of job loss was lower for both blue- and white-collar workers during 1993–94. (See table 2.) The displacement rate for blue-collar workers (4.2 percent) continued to be higher than that for white-collar workers (3.2 percent). Since the early 1980s, however, the gap between the blue- and white-collar displacement rates has narrowed, reflecting the fact that a wider range of occupations are being subjected to job loss.

Reason for job loss

Nearly half of the 2.4 million displaced workers reported that they had lost their jobs because their plant or company had closed down or moved. (See table 3.) Roughly one-fourth cited "slack work" as the reason for their job loss, and the remainder—3 in 10—reported that their individual position or entire shift had been abolished, up from about one-fourth in the February 1994 survey. Over the past decade, job loss due to plant closings or moves has held fairly constant, while job loss due to slack work has moved counter to the business cycle. The proportion reporting that their position or shift was abolished has doubled since the late 1980s.[10]

Displacement's aftermath

Employment status. The reemployment rate—the proportion of displaced

Table 5. Long-tenured displaced workers[1] by sex, marital status, and employment status in February 1996

[Numbers in thousands]

Sex and marital status	Number of displaced workers	Percent distribution by employment status in February 1996		
		Employed	Unemployed	Not in the labor force
Men				
Total, 20 years and older	1,417	81.3	8.5	10.2
Never married	211	74.1	14.0	11.9
Married, spouse present	985	83.0	6.9	10.1
Widowed, divorced, or separated	221	80.6	10.2	9.3
Women				
Total, 20 years and older	1,028	74.7	5.6	19.7
Never married	165	87.9	6.6	5.5
Married, spouse present	605	69.6	5.5	24.9
Widowed, divorced, or separated	258	78.3	5.0	16.7

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

Table 6. Long-tenured displaced workers[1] who found new jobs by weeks without work, age, sex, and employment status in February 1996

[Numbers in thousands]

Age, sex, and employment status in February 1996	Total who found jobs	Weeks without work before finding a job					
		Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 to 52 weeks	52 weeks or more	Median weeks without work
Total							
Total, 20 years, and older	2,018	854	390	333	311	130	8.3
25 to 54 years	1,750	764	344	276	260	106	8.0
25 to 34 years	539	237	116	86	68	32	7.7
35 to 44 years	693	313	126	111	97	46	7.9
45 to 54 years	518	214	102	79	95	28	9.6
55 years and older	219	71	38	43	43	24	15.5
Employed	1,850	808	358	309	260	115	8.0
Unemployed	86	16	23	15	25	7	19.7
Not in the labor force	83	30	10	9	26	8	17.3
Men							
Men, 20 years and older	1,195	530	238	177	174	76	7.9
Employed	1,104	506	222	166	137	73	7.6
Unemployed	61	13	13	8	23	4	[2]
Not in the labor force	31	10	3	4	14	–	[2]
Women							
Women, 20 years and older	825	325	153	156	137	54	11.5
Employed	747	302	136	143	123	43	9.8
Unemployed	24	3	9	7	2	3	[2]
Not in the labor force	53	20	7	6	12	8	[2]

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

NOTE: Dash equals zero.

workers who held new jobs when surveyed—was 79 percent in February 1996, up from 75 percent in the February 1994 survey. (See table 4.) The proportion of job losers who were unemployed was 7 percent in 1996, down from 11 percent in the previous survey. The increase in the reemployment rate and the decline in unemployment reflected overall improvements in economic conditions during the mid-1990s.

Compared with results from the previous survey, job losers in nearly every age group were more likely to be reemployed in February 1996. Displaced workers aged 25 to 34 were most likely to have found new employment, with more than 8 in 10 having found a new job when surveyed. Displaced workers aged 55 and older were least likely to be reemployed; slightly more than half had found new jobs.

Following displacement, men were more likely than women to have found a new job in February 1996, and, among those reemployed, men were more likely than women to be working full time. Among the displaced, women were less likely than men to *participate* in the labor force—defined as working or actively looking for work; 8 in 10 women were in the labor force, compared with 9 in 10 men. For each age group, the labor force participation rate is lower for women than for men who were displaced from a job. Women who were married with a spouse present were much more likely to be out of the labor force than were single women or those who were widowed, divorced, or separated. (See table 5.) Thus, balancing labor market activity with childrearing, care of elders, and other home responsibilities—roles traditionally assumed by women—may have played a part in women's decisions about whether to search for new jobs following job loss. The ability to depend on other family members for financial support also appears to be an important factor.

Table 7. Long-tenured displaced workers[1] by receipt or exhaustion of unemployment insurance benefits and employment status in February 1996

[Numbers in thousands]

Characteristic	Displaced workers	
	Number	Percent
Total, 20 years and older	2,445	100.0
Received benefits	1,302	53.3
Exhausted benefits	687	28.1
Did not receive benefits	1,132	46.3
Employed	1,920	100.0
Received benefits	1,002	52.2
Exhausted benefits	468	24.4
Did not receive benefits	909	47.3
Unemployed	177	100.0
Received benefits	117	66.1
Exhausted benefits	79	44.6
Did not receive benefits	61	34.5
Not in the labor force	348	100.0
Received benefits	183	52.6
Exhausted benefits	140	40.2
Did not receive benefits	162	46.6

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

NOTE: Data on receipt of unemployment insurance benefits will not sum to totals or to 100 percent because a small number of workers did not report whether they received benefits.

Another factor for some workers might have been their previous level of commitment to the labor force. Women were more likely than men to have been displaced from part-time jobs; 15 percent of women lost part-time jobs, compared with 4 percent of their male counterparts. Of those displaced from part-time jobs, women were 3 times more likely than men to be out of the labor force when surveyed.

As was the case in nearly each of the prior surveys, blacks and Hispanics were less likely than whites to be reemployed in February 1996. Among blacks and Hispanics, roughly three-fourths had found new jobs when surveyed, compared with nearly 8 in 10 whites. (See table 4.)

Weeks without work. In February 1996, the 2 million displaced workers who had found work at some point after displacement were asked how many weeks had passed before they began a new job.[11] The median number of weeks without work for the group was 8.3. (See table 6.) Displaced workers aged 55 years and older had the longest spell without work—15.5 weeks. In comparison, workers in the 25-to-54-year age group spent much less time without work (8 weeks). Women who lost their jobs were without work longer (11.5 weeks) than their male counterparts (7.9 weeks). (As indicated earlier, women also were more likely than men to stop participating in the labor force following job loss.)

Workers who were reemployed when surveyed in February 1996 spent fewer weeks (8.0) between displacement and their first postdisplacement job than did those who were unemployed (19.7) or out of the labor force (17.3) in February 1996.

Receipt of unemployment insurance. For many displaced workers, loss of income was mitigated for a time by receipt of unemployment insurance benefits; more than half of displaced workers received unemployment insurance after losing their jobs. (See table 7.) The proportion who had received benefits (two-thirds) was highest among those who were unemployed at the time of the survey.

More than 1 in 4 displaced workers who had received unemployment insurance had exhausted their benefits prior to the time of the February 1996 survey. This proportion was highest (45 percent) for those who were unemployed and lowest (24 percent) for those who were employed when the survey was taken.

Loss of health insurance. Seven of every ten workers displaced in the mid-1990s had been included in a group health plan on their lost jobs. (See table 8.) For displaced workers, employment status at the time of the survey greatly influenced whether they still had coverage from any source. Typically, workers who had been reemployed were covered by some form of insurance, either through their new jobs or through the plan of a spouse or other family member. Only about 1 in 10 of the reemployed was not covered when surveyed in February 1996. By comparison, displaced workers who were unemployed had a much greater likelihood of not having health insurance coverage; more than half of those who had been covered on their lost job were not covered when surveyed. Overall, women and men were about equally likely to have health insurance coverage after displacement.

As in prior surveys, black and Hispanic displaced workers were less likely than whites to have health insurance when surveyed. One reason for minorities' lower coverage rates is that they were less likely than whites to be reemployed in February 1996. Moreover, blacks and Hispanics were less likely to have been covered on their predisplacement jobs; two-thirds of black workers and only half of Hispanic workers had been covered, compared with more than 7 in 10 white workers.

The new jobs

Of the 2.4 million workers displaced in 1993–94, about 9 in 10 had been employed in full-time wage and salary jobs. When surveyed in February 1996, 65 percent of these displaced workers were again working in full-time wage and sal-

Table 8. Long-tenured displaced workers[1] by incidence of group health insurance coverage on lost and current job, by sex, race, and Hispanic origin

[Numbers in thousands]

Characteristic	Total	Covered by a group health insurance plan on lost job			Not covered on lost job
		Total	Percent covered by any group health insurance plan in February 1996		
			Yes	No	
Total, 20 years and older	2,445	1,748	81.6	17.6	681
Employed	1,920	1,391	86.5	12.9	515
Unemployed	177	124	45.2	54.8	54
Not in the labor force	348	233	71.7	25.8	113
Men, 20 years and older	1,417	1,080	82.4	17.1	325
Employed	1,152	884	86.8	12.6	256
Unemployed	120	84	52.4	47.6	36
Not in the labor force	145	112	70.5	29.5	33
Women, 20 years and older	1,028	668	80.1	18.6	356
Employed	768	507	86.0	13.6	259
Unemployed	57	40	[2]	[2]	17
Not in the labor force	203	121	72.7	22.3	80
White					
Total, 20 years and older	2,094	1,505	82.5	17.1	574
Men	1,227	961	83.4	16.5	255
Women	868	544	81.1	18.0	319
Black					
Total, 20 years and older	273	181	71.8	26.0	92
Men	158	95	70.5	25.3	63
Women	116	86	73.3	26.7	29
Hispanic origin					
Total, 20 years and older	212	107	43.9	57.0	96
Men	144	72	[2]	[2]	63
Women	68	35	[2]	[2]	33

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

NOTE: Health insurance coverage excludes medicare or medicaid. Detail will not sum to totals or to 100 percent because a small number of respondents did not know about their coverage on their past or current job, or both. Moreover, detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented, and Hispanics are included in both the white and black population groups.

ary jobs, while 7 percent were holding part-time jobs and 9 percent were self-employed or working as unpaid family workers. The remainder were either unemployed or out of the labor force.

Switching industries. Many reemployed workers were in industries other than those in which they had worked previously. For example, of the 559,000 displaced manufacturing workers reemployed in February 1996, only half were reemployed in manufacturing. By comparison, nearly three-fourths of the 361,000 displaced from the expanding (and diverse) services industry were reemployed in the same industry. In fact, roughly 1 in 4 workers displaced from the manufacturing, transportation and public utilities, retail trade, and finance, insurance, and real estate industries had found new jobs in the services industry when surveyed in February 1996.

Earnings. Although workers who lost full-time wage and salary jobs in 1993 and 1994 were more likely to be reemployed in such jobs than those in the previous survey period, earnings patterns in the new jobs were similar between the two surveys. More than half of those who had lost full-time wage and salary jobs and were again employed in such jobs earned less than they had previously. Slightly more than one-third had suffered earnings losses of 20 percent or more.[12] (See table 9.)

Median weekly earnings on jobs lost during the 1993–94 period were $538. At the time of the February 1996 survey, the median had declined by 14 percent, to $463. (These data are restricted to median weekly earnings on full-time wage and salary jobs with respect to both the lost and new jobs.) Earnings losses recorded in the most recent survey were similar in magnitude to those observed in the previous survey period.

The decline in earnings was greatest, 17 percent, for persons aged 35 to 44. By gender, women's predisplacement earnings were lower than men's, and earnings losses after displacement were greater for women (16 percent) than for men (13 percent). In terms of race, earnings losses were greatest for blacks (24 percent); they were much smaller for both whites and Hispanics.

Of the workers who had found new full-time jobs when surveyed in February 1996, those who had lost manufacturing jobs experienced the greatest decline in their median weekly earnings. Earnings fell 19 percent from $552 per week on the old job to $445 per week on the new job. (See table 10.) Weekly earnings for workers displaced from jobs in other industries showed no statistically significant change between the lost and new job. In terms of the *range* of earnings losses, durable goods manufacturing and transportation and public utilities had the largest proportions of workers suffering earnings losses of 20 percent or more; about 4 in 10 of the workers in these industries experienced a drop in earnings of this magnitude.

Table 9. Median weekly earnings of long-tenured displaced full-time wage and salary workers[1] on their lost jobs and on jobs held in February 1996 by age, sex, race, and Hispanic origin

[Numbers in thousands]

Age, sex, race, and Hispanic origin	Displaced full-time wage and salary workers	Part time	Reemployed in full-time wage and salary jobs in February 1996					
			Total[2]	Total who reported earnings	Earnings relative to those of lost job			
					20 percent or below	Below, but within 20 percent	Equal to or above, but within 20 percent	20 percent or more above
Total, 20 years and older	2,213	146	1,431	1,278	33.9	19.6	24.6	22.0
20 to 24 years	52	5	20	19	[3]	[3]	[3]	[3]
25 to 54 years	1,851	118	1,292	1,149	32.2	19.8	24.5	23.4
25 to 34 years	565	28	426	378	22.2	19.3	21.7	36.8
35 to 44 years	718	40	509	465	35.9	21.3	25.2	17.6
45 to 54 years	568	50	358	306	38.6	18.6	27.1	15.7
55 to 64 years	250	19	113	103	51.5	16.5	28.2	3.9
65 years and older	60	3	6	6	[3]	[3]	[3]	[3]
Men, 20 years and older	1,353	69	899	798	33.5	17.9	24.4	24.2
Women, 20 years and older	860	77	532	479	34.7	22.3	24.6	18.4
White								
Total, 20 years and older	1,889	135	1,202	1,079	32.8	20.3	24.2	22.7
Men	1,184	67	779	692	31.9	19.2	24.0	24.9
Women	705	68	423	387	34.4	22.0	24.5	19.1
Black								
Total, 20 years and older	257	8	175	145	48.3	13.8	17.2	20.7
Men	142	2	96	82	51.2	6.1	17.1	25.6
Women	115	6	78	63	[3]	[3]	[3]	[3]
Hispanic origin								
Total, 20 years and older	175	5	114	103	27.2	28.2	22.3	22.3
Men	123	5	91	85	23.5	29.4	27.1	20.0
Women	52	–	23	18	[3]	[3]	[3]	[3]

Age, sex, race, and Hispanic origin	Reemployed in full-time wage and salary jobs in February 1996			Self-employed and unpaid family workers	Unemployed	Not in the labor force
	Median weekly earnings on:					
	Lost job	Job held in February 1996	Percent change			
Total, 20 years and older	$538	$463	–13.9	189	159	288
20 to 24 years	[3]	[3]	[3]	3	15	9
25 to 54 years	531	469	–11.7	152	123	165
25 to 34 years	428	447	4.4	31	20	60
35 to 44 years	576	477	–17.2	52	62	54
45 to 54 years	587	489	–16.7	69	41	51
55 to 64 years	670	422	–37.0	22	20	75
65 years and older	[3]	[3]	[3]	11	1	39
Men, 20 years and older	605	525	–13.2	141	109	134
Women, 20 years and older	462	390	–15.6	48	49	153
White						
Total, 20 years and older	555	495	–10.8	172	127	253
Men	625	550	–12.0	131	88	119
Women	472	407	–13.8	41	38	134
Black						
Total, 20 years and older	456	349	–23.5	15	32	27
Men	489	356	–27.2	9	21	13
Women	[3]	[3]	[3]	7	11	14
Hispanic origin						
Total, 20 years and older	384	368	–4.2	12	14	29
Men	373	371	–.5	9	3	14
Women	[3]	[3]	[3]	3	11	14

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Includes 153,000 who did not report earnings on their lost job.

[3] Data not shown where base is less than 75,000.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented, and Hispanics are included in both the white and black population groups. Dash equals zero.

Table 10. Median weekly earnings of long-tenured displaced full-time wage and salary workers[1] on their lost jobs and on jobs held in February 1996 by industry and class of worker of lost job

[Numbers in thousands]

Industry and class of worker of lost job	Displaced full-time wage and salary workers	Part time	Reemployed in full-time wage and salary jobs in February 1996					
			Total[2]	Total who reported earnings	Earnings relative to those of lost job			
					20 percent or below	Below, but within 20 percent	Equal to or above, but within 20 percent	20 percent or more above
Total, 20 years and older	2,213	146	1,431	1,278	33.9	19.6	24.6	22.0
Nonagricultural private wage and salary workers	2,013	132	1,291	1,164	34.7	20.3	22.9	22.2
Mining	34	–	13	9	[3]	[3]	[3]	[3]
Construction	106	2	75	71	36.6	14.1	29.6	19.7
Manufacturing	743	43	481	432	38.2	18.8	21.3	21.8
Durable goods	473	27	309	273	41.8	13.2	23.4	21.6
Nondurable goods	270	16	172	159	32.1	28.3	17.6	22.0
Transportation and public utilities	164	10	124	114	42.1	20.2	21.1	16.7
Transportation	99	9	72	68	[3]	[3]	[3]	[3]
Communications and other public utilities	65	1	51	47	[3]	[3]	[3]	[3]
Wholesale and retail trade	408	33	262	224	30.4	21.4	16.5	31.7
Wholesale trade	140	5	98	93	22.6	21.5	18.3	37.6
Retail trade	268	28	164	129	36.4	20.9	14.7	27.9
Finance, insurance, and real estate	194	9	112	96	19.8	27.1	28.1	25.0
Services	357	35	225	219	32.9	21.5	29.7	16.0
Professional services	182	28	116	111	36.9	23.4	28.8	10.8
Other services	168	7	105	103	29.1	20.4	31.1	19.4
Agricultural wage and salary workers	27	6	13	13	[3]	[3]	[3]	[3]
Government workers	156	8	113	98	26.5	14.3	39.8	19.4

Industry and class of worker of lost job	Reemployed in full-time wage and salary jobs in February 1996			Self-employed and unpaid family workers	Unemployed	Not in the labor force
	Median weekly earnings on:					
	Lost job	Job held in February 1996	Percent change			
Total, 20 years and older	$538	$463	–13.9	189	159	288
Nonagricultural private wage and salary workers	539	465	–13.7	177	150	263
Mining	[3]	[3]	[3]	3	12	6
Construction	550	515	–6.4	8	12	8
Manufacturing	552	445	–19.4	41	62	116
Durable goods	614	494	–19.5	27	43	67
Nondurable goods	472	384	–18.6	15	20	48
Transportation and public utilities	627	559	–10.8	1	9	21
Transportation	[3]	[3]	[3]	1	3	14
Communications and other public utilities	[3]	[3]	[3]	–	6	7
Wholesale and retail trade	394	407	3.3	43	17	54
Wholesale trade	462	503	8.9	21	5	10
Retail trade	360	357	–.8	22	12	43
Finance, insurance, and real estate	527	485	–8.0	34	4	36
Services	621	525	–15.5	44	33	19
Professional services	673	562	–16.5	13	17	8
Other services	575	481	–16.3	31	13	12
Agricultural wage and salary workers	[3]	[3]	[3]	–	4	4
Government workers	554	430	–22.4	12	2	21

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Includes 153,000 who did not report earnings on their lost job.

[3] Data not shown where base is less than 75,000.

NOTE: Dash equals zero.

Table 11. **Long-tenured displaced workers,[1] displacement rates, and reemployment rates by census region and division, 1991–92 and 1993–94**

[Numbers in thousands]

Census designation	1991–92			1993–94		
	Displaced workers	Reemployment rate[2]	Displacement rate[3]	Displaced workers	Reemployment rate[2]	Displacement rate[3]
Total, 20 years and older	2,816	75.0	3.9	2,445	78.5	3.2
Northeast	694	69.3	4.4	541	75.0	3.4
New England	209	71.8	4.9	164	78.0	3.8
Middle Atlantic	485	68.2	4.2	377	73.7	3.2
Midwest	630	80.3	3.4	596	81.5	3.2
East North Central	454	79.5	3.6	418	79.7	3.2
West North Central	176	82.4	3.2	178	86.0	3.1
South	807	78.4	3.3	734	80.1	2.9
South Atlantic	458	77.7	3.5	378	79.1	2.8
East South Central	127	75.6	3.0	141	85.1	3.2
West South Cental	222	81.5	3.1	215	78.6	2.8
West	686	72.0	4.7	575	76.3	3.7
Mountain	147	80.3	4.1	133	75.2	3.4
Pacific	539	69.8	4.8	442	76.7	3.9

[1] Data refer to persons who had 3 or more years of tenure on a job they had lost or left between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] See text footnote 6 for an explanation of the reemployment rate calculation.

[3] See text footnote 3 for an explanation of the displacement rate calculation.

Regions. As the labor market improved during the mid-1990s, the incidence of worker displacement declined in every region of the United States.[13] As was the case in the previous survey, the risk of job loss was greatest in the Northeast and West and lowest in the Midwest and South. For example, displacement rates for the New England and Pacific regions were 3.8 and 3.9 percent, respectively; by comparison, the rate was 2.8 percent in both the South Atlantic and West South Central regions, and 3.1 percent in the West North Central region. (See table 11.)

Workers in the South and Midwest also were more likely to be reemployed than were those in the Northeast and West. For example, reemployment rates in the West North Central and East South Central regions were 86.0 and 85.1 percent, respectively; by comparison, rates were 73.7 percent in the Middle Atlantic region and 75.2 percent in the Mountain region.

Short-tenured workers

Since the inception of the Displaced Worker Surveys in 1984, BLS analysis of data on displaced workers has focused primarily on workers who had 3 or more years of tenure with their employer (long-tenured). Some researchers have argued that limiting analysis to only long-tenured displaced workers is too restrictive and, in response, have formulated alternative measures of job displacement that include workers with fewer than 3 years of tenure (short-tenured).[14] However, the rationale for restricting analysis to only the long-tenured is to ensure that these workers had a significant attachment to their previous employer, and thus had acquired a considerable amount of job-specific skills. Excluding short-tenured job losers lessens the likelihood of including displacement that was the result of a mismatch between the employee and employer rather than the consequence of labor market conditions.

Indeed, short-tenured displaced workers differ from their counterparts with long tenure in terms of demographic characteristics, industry and occupational concentration, and risk of displacement. In the February 1996 survey, the number of short-tenured displaced workers was 2.7 million. (See table 12.) These workers were about 5 times as likely to be young—aged 20 to 24—than were their counterparts with long-tenure. Displaced workers with short tenure were nearly twice as likely as the long-tenured to have lost part-time jobs, and were more likely to be less educated; the proportion who had not graduated from high school (14 percent) was higher than that for the long-tenured (8 percent).

In terms of occupations, short-tenured displaced workers were less likely than those with longer tenure to have worked in managerial and professional specialty occupations, and were twice as likely to have held service jobs. By industry, short-tenured job losers were more likely to

Table 12. Percent distribution of displaced workers and displacement rates for workers who lost jobs in 1993 or 1994 by tenure on the lost job and selected characteristics

Characteristic	3 years of tenure or more		Less than 3 years of tenure	
	Total[1]	Displacement rate[2]	Total[1]	Displacement rate[2]
Total				
Total, 20 years and older (in thousands)	2,445	3.2	2,699	6.7
Percent	100.0	3.2	100.0	6.7
20 to 24 years	3.0	2.3	15.5	4.3
25 to 54 years	81.9	3.4	78.1	7.4
25 to 34 years	24.4	3.4	36.3	6.6
35 to 44 years	32.6	3.4	27.5	7.8
45 to 54 years	24.9	3.4	14.3	8.3
55 years and older	15.1	3.0	6.4	6.9
55 to 64 years	11.3	3.0	4.5	6.5
65 years and older	3.7	3.1	1.9	8.2
Men, 20 years and older	58.0	3.3	55.3	7.3
Women, 20 years and older	42.0	3.1	44.7	6.2
White, 20 years and older	85.6	3.2	83.2	6.6
Black, 20 years and older	11.2	3.5	12.9	8.2
Hispanic origin, 20 years and older	8.7	3.5	10.2	6.9
Full- and part-time status				
Full-time workers	89.2	3.3	80.5	7.1
Part-time workers	8.4	2.2	15.4	4.7
Educational attainment				
Less than a high school diploma	8.1	2.5	13.5	7.8
High school graduates, no college	32.7	3.0	33.4	6.9
Some college, no degree	22.6	3.9	23.1	6.6
Associate degree	12.0	4.7	9.7	8.3
College graduates, total	24.5	2.9	20.3	5.7
Occupation				
Managerial and professional specialty	27.3	2.9	17.9	5.1
Technical, sales, and administrative support	32.7	3.6	31.6	6.6
Service occupations	5.7	1.7	11.8	4.8
Precision production, craft, and repair	12.6	3.3	15.0	10.2
Operators, fabricators, and laborers	20.2	4.9	21.3	8.9
Farming, forestry, and fishing	.8	.8	1.1	4.3
Industry				
Nonagricultural private wage and salary workers	90.2	4.2	92.6	7.5
Mining	1.4	7.1	.9	13.6
Construction	4.9	4.2	11.4	12.5
Manufacturing	30.8	5.7	19.7	8.7
Durable goods	19.2	6.2	12.0	8.9
Nondurable goods	11.6	5.0	7.7	8.4
Transportation, communications and other public utilities	7.5	4.2	6.0	7.5
Wholesale and retail trade	19.5	4.4	25.0	5.4
Finance, insurance, and real estate	8.5	4.5	5.6	5.7
Services	17.5	2.7	23.8	5.0
Agricultural wage and salary workers	1.3	3.3	1.0	4.8
Government workers	7.2	1.2	4.0	2.6

[1] Data refer to persons who had lost or left a job between January 1993 and December 1994 because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] See text footnotes 3 and 15 for explanations of the displacement rate calculation.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented, and Hispanics are included in both the white and black population groups. In addition, data for workers who were displaced from full- and part-time jobs will not sum to totals because data were not collected for a small number of workers, while others worked at jobs in which their hours varied. Similarly, occupational detail will not sum to totals because a small number of workers did not report occupation of lost job.

have worked in the construction, wholesale and retail trade, and services industries.

Displaced workers with short tenure had a much higher risk of displacement than did those with long tenure. The displacement rate for those with short tenure (6.7 percent) was more than twice that for long-tenured workers (3.2 percent).[15] This relationship held for nearly every demographic group and for many industry and occupational categories.

THE ECONOMIC EXPANSION AND IMPROVEMENT in the job market in the mid-1990s led to a decline in the number of displaced workers. Between 1993 and 1994, 2.4 million long-tenured workers were displaced from their jobs. These workers accounted for 3.2 percent of all workers who had been with the same employer for 3 years or more. By comparison, 3.9 percent of all long-tenured workers had lost their jobs during 1991–92, a period of much poorer labor market conditions. Although workers in the mid-1990s were more successful at finding new jobs than those reporting displacement in the prior survey, those who found full-time jobs were no more likely to have found jobs with earnings comparable to those on their lost jobs. While workers in goods-producing industries continued to be overrepresented among the displaced, job losses recorded in the February 1996 survey were more widely dispersed across industries and occupations than those experienced in previous surveys. □

Footnotes

[1] In addition to workers who said they had lost jobs, the count of displacement also includes workers who said they had left jobs in anticipation of losing them.

[2] The National Bureau of Economic Research, Inc., generally viewed as the arbiter of business cycle dates, designated March 1991 as the trough of the recession that began in July 1990. However, although the recession officially ended in early 1991, labor market conditions continued to be unusually sluggish well into 1992.

[3] Displacement rates are calculated by dividing the number of displaced workers in a specified worker group by a tenure-adjusted, 2-year average estimate of employment for the same worker group. Employment estimates for each year were adjusted, using job-tenure data from the January 1983, 1987, 1991, and February 1996 CPS supplements, to include only those workers with 3 years of tenure or more. A 2-year average was then computed using those adjusted employment estimates.

[4] These surveys were initiated in 1984 to address concerns about the extent to which structural changes in the economy had resulted in the elimination of many long-held jobs in the early 1980s. The 1984 survey was conducted under the aegis of the Employment and Training Administration of the U.S. Department of Labor. The series of questions on displacement has since become a biennial supplement to the Current Population Survey (CPS).

[5] During 1993–94, among workers aged 20 and older, the 2-year average unemployment rate for those with less than a high school diploma was 11.5 percent, while that for college graduates was 2.9 percent.

[6] Reemployment rates are calculated by dividing the number of displaced workers in a specified worker group who were reemployed at the time of the survey by the total number displaced in the same worker group.

[7] In Paul Swaim and Michael Podgursky, "Do more-educated workers fare better following job displacement?" *Monthly Labor Review*, August 1989, pp. 43–46, the authors found that workers with more education spend considerably less time finding a new job and are more likely to become reemployed in a full-time job. In addition, workers with higher levels of education are more likely to find jobs that pay wages similar to those of their lost jobs.

[8] For purposes of this analysis, blue-collar occupations are defined as the sum of the "precision production, craft, and repair" and "operators, fabricators, and laborers" categories; the white-collar occupations comprise the "managerial and professional specialty" and "technical, sales, and administrative support" categories.

[9] Even so, results from a recent study, which controlled for such differences between groups, suggest that the risk of job displacement declines markedly with more education. See Henry S. Farber, "The Changing Face of Job Loss in the United States, 1981–95." *Brookings Papers on Economic Activity: Microeconomics* (The Brookings Institution), forthcoming.

[10] In "The Changing Face of Job Loss," Farber found that much of the increase in displacement due to "position or shift abolished" has been concentrated among more educated workers.

[11] Because of an error in the February 1994 survey, data on weeks without work were not collected.

[12] It should be noted that decreases are somewhat understated (and increases overstated), because the earnings data are not adjusted for inflation.

[13] The four census regions of the United States are Northeast, South, Midwest, and West. Within the Northeast, the New England division includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; and the Middle Atlantic division includes New Jersey, New York, and Pennsylvania. Within the South, the South Atlantic division includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East South Central division includes Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central division includes Arkansas, Louisiana, Oklahoma, and Texas. Within the Midwest, the East North Central division includes Illinois, Indiana, Michigan, Ohio, and Wisconsin; the West North Central division includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Within the West, the Mountain division includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; the Pacific division includes Alaska, California, Hawaii, Oregon, and Washington.

[14] In "Job Displacement and Family Structure," Working Paper (Boston University, Center for Work and Family, 1997) Paul Attewell uses a range of three alternative definitions of job displacement in his analysis of the relationship among marital status, parental status, and job loss. The least restrictive definition includes all persons who answered "yes" to the first question of the survey, "...did you lose a job or leave one because: your plant or company closed or moved, your position or shift was abolished, insufficient work, or another similar reason?" The most restrictive definition is the Bureau of Labor Statistics (BLS) definition of long-tenured displaced workers used throughout this article.

[15] See footnote 3 for an explanation of the displacement rate calculation for long-tenured displaced workers. Displacement rates for short-tenured displaced workers are calculated by dividing the number of displaced workers (with fewer than 3 years of job tenure) in a specified worker group by a tenure-adjusted, 2-year average estimate of employment for the same worker group. Employment estimates for 1993 and 1994 were adjusted, using job-tenure data from the February 1996 CPS supplement, to include only those workers with fewer than 3 years of tenure. A 2-year average was then computed using those adjusted employment estimates.

Appendix A: Scope and method of the study

The data presented in this article were collected through a supplement to the February 1996 Current Population Survey (CPS), a monthly survey of about 50,000 households that provides basic data on employment and unemployment for the Nation. The purpose of this supplement was to obtain information on the number and characteristics of persons who had been displaced (as defined below) from their jobs over the prior 3 calendar years.

The first question asked of survey respondents was, "During the last 3 calendar years, that is, January 1993 through December 1995, did (you/name) lose or leave a job because a plant or company closed or moved, (your/his/her) position or shift was abolished, insufficient work, or another similar reason?" If the answer to that question was "yes," the respondent was asked to identify which reason, among the following, best described the reason for the job loss:

Plant or company closed down or moved
Plant or company operating but lost job because of:
  Insufficient work
  Position or shift abolished
  Seasonal job completed
Self-operated business failed
Some other reason

Respondents who provided one of the first three reasons—plant or company closed or moved, insufficient work, or position or shift abolished—were then asked questions about the lost job, including how many years it had been held; the year the job was lost; the earnings, industry, and occupation of the lost job; and whether health insurance had been provided. Other questions were asked to determine what occurred before and after the job loss, such as: Was the respondent notified of the upcoming dismissal? How long did he/she go without work? Did he/she receive unemployment benefits? And, if so, were the benefits used up? Did the person move to another location after the job loss to take or look for another job? Information also was collected about current health insurance coverage (other than medicare and medicaid) and current earnings for those employed in February 1996.

The definition of displaced workers used in this article—as in earlier studies based on displaced worker supplements—is persons aged 20 years and older who lost or left a job because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished. Most of the data presented here refer to workers who lost or left jobs they had worked at for 3 or more years. There are several important differences between the February 1994 and February 1996 surveys and surveys conducted every other January since 1984 in the counting of displaced workers that render the data not strictly comparable:

1) In January 1994, there were two major changes made in the CPS—the implementation of a redesigned survey questionnaire and collection methodology and the introduction of new population estimates from the 1990 census, adjusted for the estimated undercount of the population. For more information on these changes, see "Revisions in the Current Population Survey Effective January 1994" in the February 1994 issue of *Employment and Earnings*.

2) The reference period used when asking questions about displacement was shortened from "the prior 5 years" in earlier surveys to "the prior 3 calendar years" in the February 1994 and February 1996 surveys. This was done because the reliability of the data decreases as the length of the reference period increases. Data on job losses that occurred in the fourth and fifth years of the reference period were probably less accurate than information on displacements that occurred in years closer to the survey date. For example, in the January 1992 survey, the numbers of displacements in the fourth and fifth years—that is, 1987 and 1988—were markedly lower than when those 2 years were the second and third years of the reference period in the January 1990 survey, a clear indication of recall bias in the later years.

3) This article also excludes displacements that occurred in the year closest to the survey date. This was done to avoid the possibility of including some persons who, having lost their jobs relatively recently when they were surveyed, were counted as displaced when, in reality, their job losses were temporary rather than permanent.

4) Displaced workers who cited one of the three displacement reasons for job loss and then responded later in the questionnaire that their "class of worker" on their lost job was self-employed were excluded from the count of displaced workers in the 1994 and 1996 surveys, whereas they had been included in prior ones.

5) In the February 1994 and 1996 surveys, respondents who reported that they had lost their jobs in the year closest to the survey date—1993 in the February 1994 survey and 1995 in the February 1996 survey—and expected to be recalled within the next 6 months (and thus did not meet the requirements of having been displaced) were left out of the count of displaced workers; in earlier surveys, respondents were not asked directly about their expectation of recall.

6) The 1994 and 1996 displaced worker surveys were conducted in February, whereas the five previous surveys were held in January. In 1994, the survey was postponed 1 month to help ease the transition to the "new" survey and collection methodology that occurred in January 1994. Also, the reference periods in the 1994 and 1996 surveys were the calendar years 1991, 1992, and 1993; and 1993, 1994, and 1995, respectively. In the prior surveys, those losing jobs in the first 2 or 3 weeks of January were subject to being counted as displaced.

7) Displaced worker surveys conducted prior to the February 1994 survey also are not directly comparable because the earlier surveys were not adjusted for supplement nonresponse. A proportion of the people who complete the basic questionnaire on labor force status do not provide usable responses to the supplementary questions. Respondents may choose to answer none of the supplement questions, or they may not provide answers to key questions within the supplement. In the February 1996 survey, nonresponse was much higher relative to past displaced worker supplements. Reweighting is one of the methods historically used to adjust for such supplement nonresponse. It accounts for missing information by increasing the weights assigned to the individuals from whom information was obtained. In addition to the February 1996 survey, supplement weights also were calculated for the February 1994 survey so that comparisons of the data from the two surveys are not clouded by the differences in nonresponse.

During and after the February 1996 administration of the Displaced Worker Survey, quality assessment research was conducted as part of the Bureau's ongoing effort to improve the quality of its surveys. For more information on this research, see James L. Esposito and Sylvia Fisher, "A Summary of Quality-Assessment Research Conducted on the 1996 Displaced-Worker/Job-Tenure/Oc-

Table B. **Median weekly earnings and standard errors of the median earnings on the jobs lost between January 1993 and December 1994 and the jobs held in February 1996 for long-tenured displaced full-time wage and salary workers,[1] by age, sex, race, and Hispanic origin, and by industry and class of worker**

[Numbers in thousands]

Characteristic	Reemployed in February 1996 in full-time wage and salary jobs			
	Median weekly earnings on:		Standard error of median on:	
	Lost job	Job held in February 1996	Lost job	Job held in February 1996
Total, 20 years and older	$538	$463	$14.40	$14.53
Age, sex, race, and Hispanic origin				
20 to 24 years	[2]	[2]	[2]	[2]
25 to 54 years	531	469	15.21	14.76
25 to 34 years	428	447	22.95	18.52
35 to 44 years	576	477	38.31	21.49
45 to 54 years	587	489	34.41	25.97
55 to 64 years	670	422	184.10	40.60
65 years and older	[2]	[2]	[2]	[2]
Men, 20 years and older	605	525	25.78	16.92
Women, 20 years and older	462	390	13.63	15.65
White, 20 years and older	555	495	28.33	13.62
Men	625	550	30.86	43.13
Women	472	407	14.80	20.38
Black, 20 years and older	456	349	35.01	10.49
Men	489	356	35.69	10.39
Women	413	340	35.35	37.72
Hispanic origin, 20 years and older	384	368	38.43	51.14
Men	373	371	34.33	38.73
Women	430	353	71.74	46.46
Industry and class of worker				
Nonagricultural private wage and salary workers	539	465	15.38	13.84
Mining	[2]	[2]	[2]	[2]
Construction	550	515	86.95	37.73
Manufacturing	552	445	30.21	29.03
Durable goods	614	494	88.80	27.69
Nondurable goods	472	384	30.61	22.51
Transportation and public utilities	627	559	60.88	49.60
Wholesale and retail trade	394	407	18.28	20.34
Wholesale trade	462	503	35.78	18.60
Retail trade	360	357	19.35	32.14
Finance, insurance, and real estate	527	485	74.46	86.20
Services	621	525	41.46	31.09
Professional services	673	562	167.24	28.72
Other service industries	575	481	55.99	26.67
Agricultural wage and salary workers	[2]	[2]	[2]	[2]
Government workers	554	430	67.16	235.13

[1] Data refer to displaced workers who had lost full-time wage and salary jobs they had held for 3 or more years and were reemployed in full-time wage and salary jobs. Displaced workers are persons who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their positions or shifts were abolished.

[2] Data not shown where base is less than 75,000.

cupational-Mobility Supplement," BLS Working Paper, forthcoming.

Appendix B: Statistical error

In any sample survey such as the Current Population Survey, there are two types of errors possible—nonsampling and sampling. Nonsampling errors can be attributed to many factors, including the inability to obtain information about all cases in the sample; definitional difficulties; differences in the interpretation of questions; respondents' inability or unwillingness to provide correct information or to recall information; errors made in data collection, such as in coding or recoding the data; errors in processing the data; errors made in estimating values for missing data; and failure to represent all units within the sample (undercount).

Sampling error is the variation that occurs by chance because a sample, rather than the entire population, is surveyed. This type of error, or variability, is primarily measured by the standard error. The sample estimate and its standard error can be used to construct confidence intervals, or ranges, that would include the average result of all possible samples, with a known probability. When the standard error is multiplied by 2 and then added to and subtracted from the sample estimate, the resulting confidence interval should contain about 95 percent of all possible estimates. If the standard error is multiplied by 1.6 and then added to and subtracted from the estimate, the confidence interval contains 90 percent of all possible estimates. At one standard error, 68 percent of all possible estimates would fall within the confidence interval.

Table B shows the median weekly earnings on jobs lost in the 1993–94 period, the earnings on the job held in February 1996, and the standard errors associated with both earnings estimates. The standard error of an estimated median depends upon the shape of the distribution (particularly in the vicinity of the median value) as well as the size of its base. Because the base included in both of these earnings estimates is the same, the differences in the standard errors shown here between the lost and new job are determined solely by the distribution of earnings.

Minimum wage history

The Quest for a Living Wage: The History of the Federal Minimum Wage Program. By Willis J. Nordlund. Westport, CT, Greenwood Press, 1997, 283 pp. $57.95.

In Australia (1896), in Great Britain (1909), and then later in the United States, minimum wage legislation was the result of "anti-sweating" agitation, says the author of *The Quest for a Living Wage.* One of the earliest definitions of "sweating" was: "The payment by an employer to his work people of a wage which is insufficient to purchase for them the necessaries of life. These include food, housing, clothing, and the like, needed to maintain life on a sustained basis."

Between 1923 and 1933, no important legislation or judicial activity related to the minimum wage took place, but several public interest groups such as the National Consumer League addressed the problems of low wages. When President Franklin D. Roosevelt assumed the presidency in March 1933, the unemployment rate was almost 25 percent. The belief emerged that an important reason for the economic downturn was the exploitation of workers through low wages and long hours. A seeming failure on the part of the long-standing laissez faire policy created a philosophical void. Into this flowed the New Deal economic thrusts supported by—or in some sense legitimized by—John Maynard Keynes.

In May 1933, the National Industrial Recovery Act (NIRA) was passed, which *The Economist* observed, "probably collects more divergent economic and social theories under the roof of a single enactment than any other piece of legislation ever known." President Roosevelt explained, "Its aim was to increase the buying power of wage earners and farmers so that industry, labor, and the public might benefit through building up the market for farm and factory goods." While the NIRA was generally viewed as a failure even before the Supreme Court killed it on May 27, 1935, it was a breakthrough in the attitude towards protective labor legislation.

In the most general sense, Nordlund indicates that minimum wage legislation was passed primarily because of the existence in our economy of (1)interstate markets, (2)monopolistic competition, and (3)unemployment. The congressional debate on the early wage and hour bill makes clear that it was proposed, in part, as a means of reducing unemployment through cutting of weekly hours. But public opinion as to whether the States or Federal Government should provide a wage floor has varied over time.

In 1933, the Department of Labor established a long series of "Conferences on the Minimum Wage." Participants were State minimum wage administrators and representatives of organizations with an interest in these programs: The National Consumers' League, the General Federation of Women's Clubs, the National Women's Trade Union League, the AFL, the National League of Women Voters, and the National Young Women's Christian Association. The original bills provided for, among other things, (1)a five member Fair Labor Standards Board, (2)a minimum wage of not more than 80 cents an hour or $1,200 per year, (3)the general initiation of a 40 cents-an-hour, 40 hour workweek except in exceptional circumstances, (4)the prohibition of interstate shipment of goods produced with "oppressive child labor," (5)the exception of agricultural workers and executive, administrative, supervisory and professional employees, and (6)authorization of the Fair Labor Standards Board to appoint advisory committees to consider conditions in industries or occupations before establishing specific wage and hour standards. The Fair Labor Standards Act (FLSA) went into effect on October 24, 1938.

The attack on Pearl Harbor changed the world, the Nation, and the administration of the Fair Labor Standards Act, points out *The Quest for a Living Wage.* Military agencies needed more inspectors to ensure the quality and delivery of war materials. Since the Wage and Hour Division had developed an extensive field structure, it became a major component of the war-related inspection program. On October 3, 1942, the President issued an Executive Order which froze wages. Inspectors of the Wage and Hour Division were assigned to explain, investigate, and enforce the wage stabilization program.

In peacetime, legislators and program administrators believed it was time to raise the minimum wage. On the 10th anniversary of the FLSA, about 22.6 million workers were subject to the minimum wage provisions of the law, and about 20 million were protected by overtime standards. About 638,000 establishments were covered by the law's provisions. But the inflationary spiral after World War II, unions' success in obtaining higher wage levels, and the general upward movement of the wage structure left the lowest paid segment of the labor force further behind. Besides a wage increase, the Administration also wanted to expand protection of American workers by removing exemptions for the food-processing industry and large retail stores, and expand coverage from those whose work was "in" interstate commerce to employees whose work "affected" interstate commerce. When the conference compromise bill was passed and signed by President Truman, about 1.5 million wage earners received wage increases of 5 to 15 cents an hour when the amendments became effective in January 1950. President Truman, in his signing statement, observed: "The Act has proved to be wise and progressive remedial legislation for the welfare not only of our wage earners but of our whole economy."

During the Korean War, United States wages and prices were frozen on January 25, 1951. To some degree, this second debate of minimum wage legislation was a period of experimentation

combined with an effort to regularize enforcement of the law. It was clear where the emphasis for expanded coverage would be in the years ahead. More than 15 million workers in the lowest paid jobs in retail trade, services and agriculture were provided no protection by the Fair Labor Standards Act.

The third decade started with major amendments to the law on May 5, 1961. President John F. Kennedy signed a bill into law that, among other things, raised the minimum wage from $1 an hour to $1.25 an hour, expanded coverage to categories of workers previously without protection, strengthened the back wage recovery process, and required a variety of studies to determine the consequences of maintaining several exceptions to the law. Before the decade ended, the FLSA was amended again to provide for a second round of phased-in minimum wage increases. Between 1960 and 1969, the number of wage and salary workers increased 29.3 percent. Average weekly hours continued to decline from 38.6 hours per week in 1960 to 37.7 hours per week in 1969. The total U.S. population in 1960 was 180.7 million people, of which 39.9 million—22.1 percent—were classified as poor.

While attention is focused primarily on the wage, hour, and child labor provisions of the Act, an important amendment in 1963 established the fundamental principal of pay equity. Entitled the Equal Pay Act, this amendment to the FLSA prohibited discrimination in pay based on the gender of the worker. Although the philosophy underlying equal pay was widely accepted, the Equal Pay Act became a stepchild of the FLSA. One can assume that compliance officers were conscious of equal pay requirements, but it is unclear what level of enforcement actually occurred.

Most significant of the 1966 amendments was the expansion of coverage by more than 9 million additional workers—2 million in public, and private hospitals and nursing institutions, 1.7 million in retail trade, and 1.3 million in public and private educational institutions. The remaining 4 million were primarily in the construction and laundry industry, and Federal, State, and local governments. That amendment also mandated a study of recommendations to the Congress based on a study of the character of employment discrimination.

The author points out that when one reads the literature, one gets the distinct impression that minimum wage programs are powerful tools for economic change. But in some ways, more impacts may be attributed to it than could reasonably be expected—positive and negative. The program affects less than 2 percent of the population—about 4 percent of the work force. The empirical evidence generated during the 1970s and 1980s forged a strong tie between changes in the minimum wage and youth employment and unemployment. But an examination of the data leads to the conclusion that the consequences of raising the minimum wage are uncertain, at best.

The 1990s mark the golden anniversary of the minimum wage in the United States. At different times through the five decades, the level of the minimum wage may have approached a "living wage"—enough income for the worker to acquire the basic necessities of life. But a young person living with his or her parents may have lesser needs than a person maintaining an independent household. When the Act was initiated in 1938, about 40 percent of the nonsupervisory wage and salary workers were protected by minimum wage and overtime provisions. Today, about 80 percent of workers in the same category are covered.

Nordlund concludes by saying that, "The Fair Labor Standards Act provides a powerful economic and political statement, upon which many may disagree. The program is a political, rather than an economic statement," he contends. "What should not be in question is whether the most advanced nation on earth should improve the economic position of its lowest paid workers. There may be several policy tools that can move workers in that direction, but clearly a minimum wage that is commensurate with the state of the economy and the overall structure of wages and salaries should be a leading tool in that change process."

—Mary Ellen Ayres
Office of Publications
Bureau of Labor Statistics

Labor rights and standards

Human Rights, Labor Rights, and International Trade. Edited by Lance A. Compa and Stephen F. Diamond. Philadelphia, PA, University of Pennsylvania Press, 1996, 311 pp. $39.95.

Worker Rights and Labor Standards in Asia's Four New Tigers: A Comparative Perspective. By Marvin J. Levine. New York, Plenum Press, 1997, 476 pp. $69.50.

The Compa–Diamond book addresses questions of labor law and labor rights in the context of the global economy—a context to which the practice of labor law is unaccustomed, and for which no clear venue exists. True, ILO (International Labour Organization) has formulated numerous standards for worker rights and working conditions, but while the great majority of nations are members, its conventions have frequently not been ratified. Even where they have been ratified, ILO, having no enforcement powers, must depend upon the parties to ratification to observe them. ILO over the years has constructed a grand body of labor rights but not one of actionable labor law.

A number of U.S. foreign trade and investment instruments include clauses mandating labor rights as conditions of what they grant. For example, the act extending preferential access of foreign goods to the United States prohibits the President from designating any country as beneficiary which fails to vouchsafe internationally recognized worker rights. However, as Philip Alston, one of the con-

tributors to the book, argues, such conditioning represents a type of "aggressive unilateralism" on the part of the United States. It lacks standing under international law, becauses it imposes standards not necessarily agreed upon by the affected country. More important, it tends to constrict the role of ILO, hindering the evolution of an international labor rights regime for which ILO, with its expertise and long experience, is alone competent. ILO's persistent marginality relates largely to the "systematic abstention of the United States from agreements on international labor standards," writes David Montgomery, another contributor. He does not probe the reasons for this but some of them are implied in the editors' introduction. Economic interests take precedent over worker rights when the stakes are large, as in granting most-favored-nation status to China or Indonesia—countries for which violations of such rights are amply documented in the book by Levine (see below).

The major contributions to the Compa-Diamond book reflect the clash of two views about worker rights and standards. A number of contributors, including David Montgomery, Virginia Leary, and others, fundamentally hold worker rights to be equivalent to human rights, to be inalienable and inseparable; and that the international labor rights regime must be strengthened (implying, to begin with, the ratification of all major ILO conventions by the United States). By contrast, R. Michael Gedbaw and Michael T. Medwig argue in effect that the subordination of labor rights and standards to economic priorities is unavoidable in the labor surplus conditions of developing countries (and increasingly in Europe as well).

Such standards as minimum wages, maximum hours, and occupational safety and health, cannot be "enjoyed" by the vast majority of the world's workers, Gedbaw and Medwig believe. The economies in which they live are "too poor." "The best hope for these workers lies in the improved conditions brought about by economic growth." Here, again, it is useful to cite Levine. It isn't lack of economic growth that vitiates standards, it is severe restrictions on worker rights to organize and bargain collectively. In Indonesia, for example, ". . . restrictions on worker rights are simply means to prevent gains in wages and working conditions, which is the main issue that attracts investment in developing countries." Malaysia's growth rate has averaged 8 percent annually for years past, yet "Increases in labor productivity are rarely translated into increases in real income," thus mainly benefitting employers and consumers abroad. At the same time, "the scope of bargaining is quite limited" by reason of restrictive regulations and the Malaysian legal system [being] "biased structurally toward employers and in-house unions. . ." In China, according to Levine, the contrast between high economic growth rates and frequently abysmal working conditions in the presence of repression of independent unions, is even more glaring.

Gedbaw and Medwig warn against pushing the promotion of labor standards "too far," quoting Gary Fields, an economist who like they defends a neoclassical position, that would "hamper employment, reduce competitiveness, and impede growth. The poor workers of the world cannot afford this." Yet, the benefits these workers derive from low or no standards appear questionable. Again, citing Levine, "Even by the poverty standards in the developing countries we are discussing, a large portion of workers are severely underpaid."

Other contributors to the book do not (as this reviewer reads them) link the attainment of worker rights to economic growth. David Montgomery points out that, in the industrial countries, the rights of citizenship have come to include minimal standards of social welfare. If these rights, together with working conditions, have tended to erode over the past two decades, it is because "the coercive authority of the nation state has been weakened by the structural changes in the global economy, brought on by the multinational corporations, and the power of multilateral lending agencies, such as the World Bank and the International Monetary Fund." But the right of collective action (that is, strikes), Montgomery writes, acknowledged by U.S. courts over the past century, is anchored in the Constitution, not in economic factors. The history of labor standards, and their enforceability reflect the relative strength of the adversaries—employers and workers—of reform movements, and of governments' willingness to invoke their police powers—not economic growth.

In an essay on the North American Agreement on Labor Cooperation (NAALC), Stephen Diamond purposes a "labor rights approach"—an approach that would link worker rights and standards and the requirements of economic development (such as increasing productivity). NAALC was a "side agreement" to the North American Free Trade Agreement (NAFTA), concluded in 1993. Under NAALC, a trinational Commission for Labor Cooperation was established whose secretariat promotes cooperation regarding a wide range of labor standards—such as occupational safety and health, child labor, migrant workers, and human resource development. Labor standards are to be advanced as well as coordinated so as to prevent them from becoming a competitive element in cross border trade. But enforcement mechanisms are weak, and enforcement procedures lengthy and complicated—in contrast to disputes involving property and investment, where parties to the disputes have direct access to the courts of NAFTA members.

Nevertheless, Diamond upholds NAALC; as a new international institution, "it legitimates the exploration of domestic labor problems." Provided the trade unions organize "parallel forms of trinational cooperation," NAALC will promote a genuine trinational demo-

cratic approach to economic development. He concedes difficulties facing this vision of his—the resentment of Mexicans who may perceive labor rights efforts as intruding upon their sovereignty; the fact that economic advances in Latin America have been made by breaching earlier obligations to trade unions; and American trade unions' frequent indifference to cooperation with their Mexican counterparts. He insists, however, that NAALC can help restore the influence of trade unions and of their political allies. His labor rights approach is meant as a response to (what he describes) the deepening crisis of the labor movement worldwide, as evidenced by loss of membership; its powerlessness in helping to shape NAFTA; and the persisting crisis of economic and social reform in Mexico, as indicated by high unemployment and declining real wages. His analysis of these crises is particularly cogent and disturbing, but renders his call for broad support of NAALC a call from the wilderness.

The book affords considerable insight into the heatedly disputed field of the linkage between trade and worker rights; it includes essays on a number of topics related to these rights. It is a superb introduction to the issues here outlined, indispensable to students and policymakers concerned with them.

Marvin J. Levine portrays with insight and an indefatigable, even passionate pursuit of factual detail how those issues are reflected in the status and daily struggles of working people in four countries—China, Indonesia, Malaysia, and Thailand. A brief review cannot do justice to his work; only a few of his main points are highlighted.

Encouraging foreign capital to invest in production for export is an economic-policy priority in the four developing countries with which Levine deals. The attraction for foreign capital generally is cheap labor. Hence, as mentioned above, labor rights are repressed or severely restricted; labor standards, although usually established by law, are not vigorously enforced, if enforced at all. In all four countries, however, government and employers must reckon with the resistance and protests of aggrieved workers. In China, tens of thousands of employer-worker conflicts have been officially arbitrated in recent years. Worker activism is not tolerated; between 1990 and 1995, Levine reports, 100 labor activists have been detained.

The concept of unemployment cannot be applied given the labor conditions of China or Indonesia. Labor reform in China has removed nearly all obstacles to mobility but has spelled the influx of an enormous mass of rural migrants into the cities, tending to depress wages. Likewise, labor reform has tended to eliminate the "iron rice bowl"—the guaranty of lifelong job security—as more and more workers have been discharged from inefficient, often virtually bankrupt state-owned enterprises. A rising proportion of workers is employed under contracts whose term run from 6 to 10 years. As efficiency improves, contracts may not be renewed. Undeniably, however, many workers welcome the chance to better themselves by being able to change jobs.

Poor men and women in Indonesia, Levine reports, will often accept any job offered, at less than the minimum wage, which itself falls below basic needs; squalid working conditions do not deter them from accepting a proffered job. While wages are but part of a worker's compensation, Indonesia now competes with China, where average labor costs are higher.

As indicated, the labor-intensive industrialization practiced by the four countries requires a low-paid labor force. Such a labor force also needs to be flexible and submissive. But even in Thailand, whose culture makes for paternalistic relations between worker and employer, protests and demonstrations have occurred. In Malaysia, a perhaps more militant working class expects to share productivity gains with investors, tending to discourage these protests. Major labor unrest has more recently occurred in Indonesia. Thus, the limits to an economic policy may be envisioned that is based on low wages and squalid working conditions—limits which in time would compel the deliberate expansion of domestic markets.

Given the context of his work, Levine asks how opportunities for economic growth may be provided "that do not depend on abuses of labor standards." He lists four categories of such standards. The first one, broadly accepted if in part still violated, is the prohibition of the use of child labor; involuntary servitude; and physical coercion. The second category he terms "survival rights," including guarantees of a living wage (necessarily defined locally or regionally); accident compensation; and a limited work week. The third would be "security rights"—including protection against arbitrary dismissal. Finally, he calls for "civic rights," that is, rights to associate freely, free voicing of grievances, and the right to collective representation.

These standards, which paraphrase a number of ILO conventions, should certainly lie at the base of any international labor rights regime. Levine's work demonstrates the enormous difficulties that stand in the path of creating such a regime; it also argues its necessity for protecting a large part of humanity.

—Horst Brand

Economist, formerly with the Bureau of Labor Statistics

Errata

Following are several corrections for tables in the *Monthly Labor Review*'s November 1997 special issue on "Employment in 2006":

I. Labor force in 2006 (page 25, table 2, fifth data column)

Men	Change, 1976–86
25 to 54	9,561
25 to 34	4,970
35 to 44	4,848
45 to 54	–257
55 and over	3,186
55 to 64	892
65 and over	2,294
65 to 74	1,529
75 and over	823

II. Industry output and employment

a. Page 44, table 4:
324 Hydraulic cement: the first figure (employment for 1986) is 22; move other figures to the right.

b. Page 48, table 4: insert the following industry
736 Personnel supply services 990 2,646 4,039 1,656 1,393 10.3 4.3 22 57 98 10.3 5.5

III. Occupational employment

a. Page 78, table 4: "Maintenance repairers, general and utility": change the last category (education and training) to "Long-term on-the-job training."

b. Page 82, table 6: Replace data as follows:

Long-term on-the-job training	12,373	13,497	9.3	8.9	1,125	9.1	3,988	7.9	490
Short-term on-the-job training	52,125	59,062	39.4	39.1	6,937	13.3	21,422	42.4	337

These data are correct on BLS homepage http://stat.bls.gov/emphome.htm

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This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 16–17, 42, and 46. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 1997 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 1997 *Review* and reflect the experience through March 1997. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 42 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2414. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 871. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet (http://stats.bls.gov/cgi-bin/dsrv?lf). Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet (http://stats.bls.gov/cgi-bin/dsrv?ee). Additional information on labor force data for sub-States are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments; and Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the CPI reflecting 1982–84 expenditure patterns, see *The Consumer Price Index: 1987 Revision*, BLS Report 736. Additional data on international prices appear in monthly news releases.

For a listing of available industry productivity indexes and their components, see *Productivity Measures for Selected Industries and Government Services*, BLS Bulletin 2461.

For additional information on international comparisons data, see *International Comparisons of Unemployment*, BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation,**

prices, and productivity are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 50,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Labor force data in tables 1 and 4–9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the end of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. Because of the redesign of the survey, seasonally adjusted data back to 1994 usually are revised. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

Revisions to household data

Data relating to 1994 and subsequent years are not directly comparable with data for 1993 and earlier years because of the introduction of a major redesign of the survey questionnaire and collection methodology. (See the February 1994 issue of *Employment and Earnings*, a monthly publication of the Bureau of Labor Statistics.) Moreover, data for 1990 forward incorporate 1990 census-based population controls, adjusted for the estimated undercount. Additional information on the population revisions appears in the March 1996 issue of *Employment and Earnings*.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 606–6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 390,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force)

are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1996 benchmarks, was made with the release of May 1997 data, published in the July 1997 issue of the *Review*. Coincident with the benchmark adjustment, seasonally adjusted data were revised back to 1988 to reflect updated seasonal factors and seasonal adjustment procedures. Unadjusted data from April 1996 forward and seasonally adjusted data from January 1993 forward are subject to revision in future benchmarks.

Revisions in State data (table 11) occurred with the publication of January 1997 data.

Beginning in June 1996, the BLS uses the X-12 ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review*). When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9–20.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 606–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 606–6392 (table 10) or (202) 606–6589 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–26)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed

employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981 = 100) of the quarterly rates of change are presented in the March issue of the BLS quarterly, *Compensation and Working Conditions.*

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Division of Employment Cost Trends: (202) 606–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 6,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25.

The survey covers paid leave benefits such as lunch and rest periods, holidays and vacations, and personal, funeral, jury duty, military, parental, and sick leave; sickness and accident, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid parental leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit, and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of care within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small establishments are conducted in even-numbered years and surveys of medium and large establishments are conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Division of Occupational Pay and Employee Benefit Levels: (202) 606–6222.

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of time lost because of stoppage.

Data are largely from newspaper accounts and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Division of Developments in Labor–Management Relations: (202) 606–6275.

Price Data

(Tables 2; 27–37)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1982–84 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 19,000 retail establishments and 57,000 housing units in 85 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 15 major urban centers are presented in table 28. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 606–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 606–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1990.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f.(costs, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 606–7155.

Productivity Data

(Tables 2; 38–41)

Business sector and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per unit of labor input (output per hour) or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined unit of labor and capital inputs.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total output. The indexes for capital services, labor inputs, and combined units of labor and capital are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures

by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 38–41 describe the relationship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 606–5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per employee hour is derived by dividing an index of industry output by an index of aggregate hours of all employees. Output indexes are based on quantifiable units of products or services, or both, combined with value-share weights. Whenever possible, physical quantities are used as the unit of measurement for output. If quantity data are not available for a given industry, data on the constant-dollar value of production are used.

The **labor input** series consist of the hours of all employees (production and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics, the Departments of Commerce, Interior, and Agriculture, the Federal Reserve Board, regulatory agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some transportation industries, only indexes of output per employee are prepared. For some trade and service industries, indexes of output per hour of all persons (including self-employed) are constructed.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 606–5618.

International Comparisons

(Tables 42–44)

Labor force and unemployment

Description of the series

Tables 42 and 43 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Canada, Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, therefore, are subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for the United States (1990, 1994), France (1992), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 Census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990–1993 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. Therefore, data for 1994 onward are not directly comparable with data for 1993 and earlier years because of the redesign, and data for 1990 onward are not directly comparable with data for 1989 and earlier years because of the introduction of the 1990 census-based population controls, adjusted for the undercount. See the Notes section on Employment and Unemployment Data of this *Review*.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in

1992 and 1993, by 0.4 percentage point in 1994, and 0.6 percentage point in 1995.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 43. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–1992 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. By 1994, the adjusted unemployment rate had risen from 7.8 to 9.6 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 606–5654.

Manufacturing productivity and labor costs

Description of the series

Table 44 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons — that is, series that measure changes over time — rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures — output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production. While methods of deriving national accounts measures differ from country to country, BLS has reviewed these methods and determined that the series are sufficiently comparable for measuring comparative trends in productivity and unit labor costs.

The 1977–94 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977. The 1994–95 percent changes in manufacturing output are based on the trend shown by the industrial production index published by the U.S. Federal Reserve Board for the manufacturing sector.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1996. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 38 and 40 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of average hours for 1994–96; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using

statistics on employment, average hours, and hourly compensation. For France and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (for all years) and Italy (beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 606–5654

Occupational Injury and Illness Data

(Table 45)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification (SIC) and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: Occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example., contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the *Office of Occupational Safety, Health and Working Conditions* at (202) 606–6180, or access the BLS Internet site at: http://www.bls.gov/oshhome.htm.

Census of Fatal Occupational Injuries

(Table 46)

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administra-

tion and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. Institutionalized persons, such as prison inmates, are excluded. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Condi-tions at (202) 606–6175, or access the BLS In-ternet site at: http://www.bls.gov/oshhome.htm

1. Labor market indicators

Selected indicators	1995	1996	1995	1996				1997		
			IV	I	II	III	IV	I	II	III
Employment data										
Employment status of the civilian noninstitutionalized population (household survey):[1]										
Labor force participation rate	66.6	66.8	66.4	66.6	66.7	66.8	66.9	67.2	67.1	67.1
Employment-population ratio	62.9	63.2	62.8	62.9	63.1	63.3	63.4	63.6	63.8	63.8
Unemployment rate	5.6	5.4	5.5	5.6	5.4	5.3	5.3	5.3	4.9	4.9
Men	5.6	5.4	5.6	5.6	5.5	5.2	5.2	5.2	4.8	4.8
16 to 24 years	12.5	12.6	12.9	13.0	12.7	12.4	12.3	12.4	11.4	11.8
25 years and over	4.3	4.1	4.2	4.3	4.1	3.9	3.9	3.9	3.6	3.5
Women	5.6	5.4	5.5	5.5	5.4	5.3	5.4	5.4	5.1	5.0
16 to 24 years	11.6	11.3	11.6	11.9	11.1	11.1	11.2	11.5	11.1	10.4
25 years and over	4.4	4.3	4.3	4.3	4.3	4.2	4.3	4.2	3.9	4.0
Employment, nonfarm (payroll data), in thousands:[1]										
Total	117,191	119,523	117,949	118,471	119,248	119,898	120,452	121,138	121,854	122,564
Private sector	97,885	100,076	98,610	99,111	99,831	100,392	100,953	101,598	102,259	102,809
Goods-producing	24,265	24,431	24,293	24,336	24,428	24,447	24,509	24,635	24,694	24,745
Manufacturing	18,524	18,457	18,488	18,473	18,467	18,443	18,444	18,476	18,504	18,537
Service-producing	92,925	95,092	93,656	94,135	94,821	95,451	95,943	96,504	97,159	97,820
Average hours:										
Private sector	34.5	34.4	34.4	34.2	34.4	34.5	34.5	34.7	34.5	34.5
Manufacturing	41.6	41.6	41.4	40.9	41.6	41.7	41.8	41.9	42.0	41.8
Overtime	4.4	4.5	4.3	4.3	4.5	4.5	4.6	4.8	4.8	4.7
Employment Cost Index										
Percent change in the ECI, compensation:										
All workers (excluding farm, household and Federal workers)	2.7	2.9	.5	.9	.7	.8	.5	.8	.6	1.0
Private industry workers	2.6	3.1	.4	.9	.9	.6	.6	.8	.8	.8
Goods-producing[2]	2.4	2.8	.6	.7	.9	.6	.6	.4	1.0	.7
Service-producing[2]	2.8	3.2	.3	1.1	.8	.7	.5	1.1	.7	1.0
State and local government workers	2.9	2.6	.5	.5	.2	1.3	.6	.4	.1	1.3
Workers by bargaining status (private industry):										
Union	2.8	2.4	.7	.6	.9	.3	.5	.2	.6	1.1
Nonunion	2.7	3.1	.4	.9	.8	.8	.5	1.1	.8	.8

[1] Quarterly data seasonally adjusted.

[2] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

– Data not available.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1995	1996	1995	1996				1997		
			IV	I	II	III	IV	I	II	III
Compensation data[1,2]										
Employment Cost Index—compensation (wages, salaries, benefits):										
Civilian nonfarm	2.7	2.9	0.5	0.9	0.7	0.8	0.5	0.8	0.6	1.0
Private nonfarm	2.6	3.1	.4	.9	.9	.6	.6	.8	.8	.8
Employment Cost Index—wages and salaries:										
Civilian nonfarm	2.9	3.3	.6	1.0	.8	.9	.6	.9	.7	1.2
Private nonfarm	2.8	3.4	.6	1.1	1.0	.7	.6	1.0	.9	1.0
Price data[1]										
Consumer Price Index (All Urban Consumers): All Items	2.5	3.3	.2	1.4	.6	.7	.5	.9	.2	.6
Producer Price Index:										
Finished goods	2.3	2.8	.9	.8	1.2	.1	.7	–.5	–.4	.2
Finished consumer goods	2.3	3.6	.6	1.0	1.6	.3	.6	–.6	–.2	.3
Capital equipment	2.2	.4	1.8	.1	–.1	–.7	1.0	.1	–.5	–.8
Intermediate materials, supplies, and components	3.3	.7	–.6	–.2	1.0	.4	–.6	–.3	.1	.2
Crude materials	5.5	14.7	3.4	3.8	3.0	–.4	7.7	–11.5	–.4	.9
Productivity data[3]										
Output per hour of all persons:										
Business sector	.0	1.5	2.0	2.2	2.5	–1.1	1.9	1.8	2.7	–
Nonfarm business sector	.2	1.3	1.6	1.9	2.2	–1.0	1.8	1.4	2.7	–
Nonfinancial corporations[4]	.8	2.4	2.1	1.3	3.3	2.3	2.0	1.9	3.2	–

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ending—					
	1996			1997			1996			1997		
	II	III	IV	I	II	III	II	III	IV	I	II	III
Average hourly compensation:[1]												
All persons, business sector	4.7	3.3	3.3	4.4	3.2	–	3.3	3.5	3.5	3.9	3.5	–
All persons, nonfarm business sector	4.4	2.9	3.3	4.5	3.2	–	3.2	3.3	3.3	3.8	3.5	–
Employment Cost Index—compensation:												
Civilian nonfarm[2]	.7	.8	.5	.8	.6	1.0	2.9	2.8	2.9	2.9	2.8	3.0
Private nonfarm	.9	.6	.6	.8	.8	.8	2.9	2.9	3.1	3.0	2.9	3.2
Union	.9	.3	.5	.2	.6	1.1	3.1	2.6	2.4	1.9	1.6	2.4
Nonunion	.8	.8	.5	1.1	.8	.8	2.8	2.9	3.1	3.2	3.2	3.2
State and local governments	.2	1.3	.6	.4	.1	1.3	2.6	2.5	2.6	2.5	2.4	2.4
Employment Cost Index—wages and salaries:												
Civilian nonfarm[2]	.8	.9	.6	.9	.7	1.2	3.2	3.2	3.3	3.3	3.2	3.5
Private nonfarm	1.0	.7	.6	1.0	.9	1.0	3.4	3.3	3.4	3.4	3.3	3.6
Union	1.1	.5	.5	.5	.7	1.1	3.0	2.7	2.6	2.6	2.2	2.8
Nonunion	.9	.8	.6	1.1	.9	1.0	3.4	3.5	3.6	3.4	3.5	3.7
State and local governments	.2	1.6	.6	.4	.1	1.6	2.8	2.8	2.8	2.8	2.7	2.7

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
TOTAL															
Civilian noninstitutional population[1]	198,584	200,591	201,273	201,463	201,636	202,285	202,388	202,513	202,674	202,832	203,000	203,166	203,364	203,570	203,76
Civilian labor force	132,304	133,943	134,636	134,831	135,022	135,848	135,634	136,319	136,098	136,173	136,200	136,290	136,480	136,467	136,36
Participation rate	66.6	66.8	66.9	66.9	67.0	67.2	67.0	67.3	67.2	67.1	67.1	67.1	67.1	67.0	66.
Employed	124,900	126,708	127,617	127,644	127,855	128,580	128,430	129,175	129,384	129,639	129,364	129,708	129,804	129,715	129,89
Employment-population ratio[2]	62.9	63.2	63.4	63.4	63.4	63.6	63.5	63.8	63.8	63.9	63.7	63.8	63.8	63.7	63.
Unemployed	7,404	7,236	7,019	7,187	7,167	7,268	7,205	7,144	6,714	6,534	6,836	6,583	6,677	6,752	6,46
Unemployment rate	5.6	5.4	5.2	5.3	5.3	5.4	5.3	5.2	4.9	4.8	5.0	4.8	4.9	4.9	4.
Not in the labor force	66,280	66,647	66,637	66,632	66,614	66,437	66,754	66,194	66,577	66,659	66,800	66,876	66,884	67,102	67,40
Men, 20 years and over															
Civilian noninstitutional population[1]	87,811	88,606	88,840	88,971	89,040	89,446	89,556	89,604	89,680	89,776	89,829	89,888	89,982	90,068	90,14
Civilian labor force	67,324	68,044	68,273	68,391	68,369	68,998	68,827	69,111	69,147	69,059	69,167	69,203	69,301	69,171	69,20
Participation rate	76.7	76.8	76.8	76.9	76.8	77.1	76.9	77.1	77.1	76.9	77.0	77.0	77.0	76.8	76.
Employed	64,085	64,897	65,299	65,349	65,367	65,813	65,818	66,066	66,243	66,418	66,266	66,414	66,491	66,325	66,33
Employment-population ratio[2]	73.0	73.2	73.5	73.4	73.4	73.6	73.5	73.7	73.9	74.0	73.8	73.9	73.9	73.6	73.
Agriculture	2,335	2,356	2,400	2,355	2,356	2,364	2,276	2,362	2,428	2,421	2,417	2,411	2,300	2,407	2,28
Nonagricultural industries	61,750	62,541	62,899	62,994	63,011	63,449	63,542	63,703	63,815	63,997	63,849	64,003	64,191	63,918	64,04
Unemployed	3,239	3,146	2,974	3,042	3,002	3,185	3,009	3,045	2,904	2,640	2,901	2,789	2,810	2,846	2,87
Unemployment rate	4.8	4.6	4.4	4.4	4.4	4.6	4.4	4.4	4.2	3.8	4.2	4.0	4.1	4.1	4.
Women, 20 years and over															
Civilian noninstitutional population[1]	96,262	97,050	97,290	97,366	97,457	97,520	97,571	97,638	97,685	97,767	97,834	97,919	98,000	98,082	98,14
Civilian labor force	57,215	58,094	58,432	58,574	58,728	58,894	58,743	59,130	58,974	59,130	59,207	59,186	59,408	59,483	59,32
Participation rate	59.4	59.9	60.1	60.2	60.3	60.4	60.2	60.6	60.4	60.5	60.5	60.4	60.6	60.6	60.
Employed	54,396	55,311	55,681	55,753	55,871	56,165	55,954	56,359	56,392	56,481	56,585	56,685	56,819	56,882	56,92
Employment-population ratio[2]	56.5	57.0	57.2	57.3	57.3	57.6	57.3	57.7	57.7	57.8	57.8	57.9	58.0	58.0	58.
Agriculture	830	827	800	786	772	797	775	739	779	743	740	841	836	841	81
Nonagricultural industries	53,566	54,484	54,881	54,967	55,099	55,369	55,179	55,620	55,613	55,738	55,845	55,844	55,983	56,041	56,11
Unemployed	2,819	2,783	2,751	2,821	2,857	2,729	2,788	2,771	2,581	2,650	2,621	2,501	2,589	2,601	2,39
Unemployment rate	4.9	4.8	4.7	4.8	4.9	4.6	4.7	4.7	4.4	4.5	4.4	4.2	4.4	4.4	4.
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	14,511	14,934	15,143	15,126	15,139	15,318	15,261	15,271	15,309	15,300	15,336	15,359	15,382	15,420	15,48
Civilian labor force	7,765	7,806	7,931	7,866	7,925	7,956	8,065	8,078	7,977	7,984	7,826	7,901	7,771	7,813	7,83
Participation rate	53.5	52.3	52.4	52.0	52.3	51.9	52.8	52.9	52.1	52.2	51.0	51.4	50.5	50.7	50
Employed	6,419	6,500	6,637	6,542	6,617	6,601	6,657	6,750	6,748	6,740	6,512	6,608	6,493	6,508	6,63
Employment-population ratio[2]	44.2	43.5	43.8	43.3	43.7	43.1	43.6	44.2	44.1	44.1	42.5	43.0	42.2	42.2	42
Agriculture	275	261	250	213	298	307	240	285	290	266	234	229	246	202	20
Nonagricultural industries	6,144	6,239	6,387	6,329	6,319	6,294	6,417	6,465	6,458	6,474	6,279	6,379	6,247	6,306	6,43
Unemployed	1,346	1,306	1,294	1,324	1,308	1,354	1,408	1,328	1,229	1,244	1,314	1,293	1,278	1,305	1,20
Unemployment rate	17.3	16.7	16.3	16.8	16.5	17.0	17.5	16.4	15.4	15.6	16.8	16.4	16.4	16.7	15
White															
Civilian noninstitutional population[1]	166,914	168,317	168,788	168,924	169,044	169,436	169,492	169,569	169,675	169,782	169,897	170,010	170,148	170,290	170,42
Civilian labor force	111,950	113,108	113,625	113,816	113,991	114,377	114,333	114,736	114,618	114,630	114,691	114,627	114,649	114,694	114,71
Participation rate	67.1	67.2	67.3	67.4	67.4	67.5	67.5	67.7	67.6	67.5	67.5	67.4	67.4	67.4	67
Employed	106,490	107,808	108,527	108,570	108,734	109,151	109,197	109,630	109,831	110,052	109,821	109,853	109,782	109,770	109,98
Employment-population ratio[2]	63.8	64.1	64.3	64.3	64.3	64.4	64.4	64.7	64.7	64.8	64.6	64.6	64.6	64.5	64
Unemployed	5,459	5,300	5,098	5,246	5,257	5,226	5,136	5,106	4,786	4,578	4,870	4,774	4,867	4,924	4,73
Unemployment rate	4.9	4.7	4.5	4.6	4.6	4.6	4.5	4.5	4.2	4.0	4.2	4.2	4.2	4.3	4
Black															
Civilian noninstitutional population[1]	23,246	23,604	23,728	23,762	23,794	23,847	23,872	23,895	23,923	23,950	23,978	24,006	24,043	24,081	24,11
Civilian labor force	14,817	15,134	15,276	15,290	15,306	15,372	15,408	15,439	15,365	15,434	15,398	15,510	15,804	15,746	15,5
Participation rate	63.7	64.1	64.4	64.3	64.3	64.5	64.5	64.6	64.2	64.4	64.2	64.6	65.7	65.4	64
Employed	13,279	13,542	13,647	13,673	13,693	13,709	13,672	13,784	13,863	13,837	13,793	14,055	14,341	14,236	14,04
Employment-population ratio[2]	57.1	57.4	57.5	57.5	57.5	57.5	57.3	57.7	57.9	57.8	57.5	58.5	59.6	59.1	58
Unemployed	1,538	1,592	1,629	1,617	1,613	1,663	1,736	1,655	1,503	1,597	1,605	1,455	1,463	1,510	1,46
Unemployment rate	10.4	10.5	10.7	10.6	10.5	10.8	11.3	10.7	9.8	10.3	10.4	9.4	9.3	9.6	9

See footnotes at end of table.

4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	Oct.
Hispanic origin															
Civilian noninstitutional population[1]	18,629	19,213	19,398	19,454	19,505	20,013	20,067	20,119	20,180	20,236	20,293	20,351	20,407	20,464	20,519
Civilian labor force	12,267	12,774	12,989	13,182	13,150	13,795	13,640	13,662	13,572	13,748	13,807	13,866	13,910	13,827	13,911
Participation rate	65.8	66.5	67.0	67.8	67.4	68.9	68.0	67.9	67.3	67.9	68.0	68.1	68.2	67.6	67.8
Employed	11,127	11,642	11,928	12,094	12,141	12,653	12,538	12,493	12,470	12,730	12,756	12,768	12,911	12,780	12,799
Employment-population ratio[2]	59.7	60.6	61.5	62.2	62.2	63.2	62.5	62.1	61.8	62.9	62.9	62.7	63.3	62.5	62.4
Unemployed	1,140	1,132	1,061	1,088	1,009	1,142	1,102	1,169	1,102	1,016	1,051	1,098	999	1,047	1,112
Unemployment rate	9.3	8.9	8.2	8.3	7.7	8.3	8.1	8.6	8.1	7.4	7.6	7.9	7.2	7.6	8.0

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		1996			1997									
	1995	1996	Oct.	Nov,	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Employed, 16 years and over	124,900	126,708	127,617	127,644	127,855	128,580	128,430	129,175	129,384	129,639	129,364	129,708	129,804	129,715	129,894
Men	67,377	68,207	68,647	68,589	68,707	69,164	69,232	69,478	69,627	69,929	69,567	69,749	69,791	69,639	69,790
Women	57,523	58,501	58,970	59,055	59,148	59,416	59,197	59,697	59,756	59,710	59,796	59,958	60,013	60,076	60,104
Married men, spouse present	42,048	42,417	42,617	42,631	42,607	42,909	42,513	42,509	42,329	42,273	42,448	42,589	42,697	42,527	42,817
Married women, spouse present	32,063	32,406	32,537	32,509	32,631	32,826	32,578	32,699	32,473	32,445	32,519	32,866	32,933	32,843	33,021
Women who maintain families	7,164	7,363	7,392	7,444	7,500	7,501	7,556	7,720	7,838	7,858	7,847	7,901	7,941	7,891	7,866
Class of worker															
Agriculture:															
Wage and salary workers	1,814	1,869	1,813	1,829	1,878	1,988	1,932	1,905	1,989	1,941	1,929	1,913	1,841	1,898	1,787
Self-employed workers	1,580	1,518	1,560	1,464	1,475	1,448	1,353	1,414	1,424	1,444	1,404	1,492	1,487	1,527	1,463
Unpaid family workers	45	56	71	68	66	62	15	59	70	50	40	53	51	40	60
Nonagricultural industries:															
Wage and salary workers	112,448	114,171	115,018	115,133	115,212	115,560	115,987	116,533	116,608	116,969	116,653	117,104	117,323	117,286	117,623
Government	18,362	18,217	18,132	18,270	18,266	18,385	18,144	17,994	18,036	17,807	18,099	18,338	18,254	18,033	18,029
Private industries	94,086	95,954	96,886	96,863	96,946	97,176	97,843	98,539	98,572	99,162	98,554	98,766	99,069	99,253	99,594
Private households	963	928	992	956	934	1,002	882	869	922	967	870	910	946	864	865
Other	93,123	95,025	95,894	95,907	96,012	96,174	96,962	97,671	97,650	98,195	97,684	97,856	98,122	98,389	98,729
Self-employed workers	8,902	8,971	8,967	9,023	9,109	9,445	9,124	9,292	9,159	9,106	9,126	8,887	8,923	8,926	8,904
Unpaid family workers	110	122	137	140	149	162	136	108	130	148	128	131	129	81	89
Persons at work part time[1]															
All industries:															
Part time for economic reasons	4,473	4,315	4,286	3,983	4,338	4,426	4,262	4,153	4,402	4,019	4,025	4,017	3,992	3,916	3,898
Slack work or business conditions	2,471	2,388	2,258	2,107	2,353	2,423	2,378	2,344	2,491	2,300	2,375	2,211	2,122	2,159	2,196
Could only find part-time work	1,702	1,605	1,683	1,559	1,653	1,552	1,550	1,518	1,629	1,391	1,347	1,522	1,519	1,476	1,399
Part time for noneconomic reasons	17,734	17,770	17,754	17,957	17,868	18,340	18,070	18,120	18,176	18,336	18,322	18,015	18,093	17,690	18,131
Nonagricultural industries:															
Part time for economic reasons	4,279	4,123	4,118	3,815	4,162	4,163	4,098	3,937	4,235	3,806	3,782	3,872	3,854	3,728	3,726
Slack work or business conditions	2,346	2,263	2,147	2,001	2,214	2,310	2,277	2,210	2,374	2,159	2,220	2,102	2,037	2,040	2,095
Could only find part-time work	1,663	1,576	1,647	1,543	1,622	1,512	1,523	1,475	1,603	1,347	1,298	1,509	1,485	1,435	1,364
Part time for noneconomic reasons	17,093	17,150	17,123	17,313	17,237	17,737	17,452	17,565	17,661	17,780	17,663	17,418	17,519	17,180	17,549

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Characteristic															
Total, all workers	5.6	5.4	5.2	5.3	5.3	5.4	5.3	5.2	4.9	4.8	5.0	4.8	4.9	4.9	4.7
Both sexes, 16 to 19 years	17.3	16.7	16.3	16.8	16.5	17.0	17.5	16.4	15.4	15.6	16.8	16.4	16.4	16.7	15.3
Men, 20 years and over	4.8	4.6	4.4	4.4	4.4	4.6	4.4	4.4	4.2	3.8	4.2	4.0	4.1	4.1	4.1
Women, 20 years and over	4.9	4.8	4.7	4.8	4.9	4.6	4.7	4.7	4.4	4.5	4.4	4.2	4.4	4.4	4.0
White, total	4.9	4.7	4.5	4.6	4.6	4.6	4.5	4.5	4.2	4.0	4.2	4.2	4.2	4.3	4.1
Both sexes, 16 to 19 years	14.5	14.2	13.6	14.1	13.7	14.3	14.6	14.1	13.1	12.7	14.5	14.9	14.4	14.4	13.4
Men, 16 to 19 years	15.6	15.5	15.4	15.5	14.8	14.9	14.6	15.0	14.3	12.7	16.3	15.4	15.5	14.6	14.6
Women, 16 to 19 years	13.4	12.9	11.6	12.6	12.6	13.6	14.7	13.1	11.9	12.7	12.6	14.3	13.2	14.1	12.0
Men, 20 years and over	4.3	4.1	3.8	3.9	3.9	4.0	3.9	3.8	3.6	3.2	3.6	3.5	3.6	3.6	3.6
Women, 20 years and over	4.3	4.1	4.0	4.2	4.3	3.9	3.9	3.9	3.6	3.7	3.7	3.5	3.7	3.7	3.4
Black, total	10.4	10.5	10.7	10.6	10.5	10.8	11.3	10.7	9.8	10.3	10.4	9.4	9.3	9.6	9.5
Both sexes, 16 to 19 years	35.7	33.6	34.2	35.4	34.7	34.8	34.3	32.1	31.2	33.2	32.7	28.6	29.4	33.1	28.4
Men, 16 to 19 years	37.1	36.9	36.5	41.2	38.6	42.7	37.4	41.4	37.3	32.6	41.1	32.9	33.1	38.7	27.8
Women, 16 to 19 years	34.3	30.3	31.9	30.0	31.2	27.5	31.3	23.7	25.3	33.8	24.5	25.1	26.2	28.4	29.0
Men, 20 years and over	8.8	9.4	9.3	9.2	8.8	9.2	9.0	9.3	8.4	8.4	9.1	8.2	7.5	7.8	8.3
Women, 20 years and over	8.6	8.7	8.9	8.9	9.2	9.2	10.3	9.2	8.4	9.4	9.1	8.3	8.4	8.4	8.2
Hispanic origin, total	9.3	8.9	8.2	8.3	7.7	8.3	8.1	8.6	8.1	7.4	7.6	7.9	7.2	7.6	8.0
Married men, spouse present	3.3	3.0	3.0	3.0	3.0	2.8	2.8	2.8	2.7	2.6	2.7	2.6	2.6	2.7	2.8
Married women, spouse present	3.9	3.6	3.5	3.6	3.7	3.3	3.4	3.2	3.1	3.2	3.2	3.1	3.0	3.1	2.8
Women who maintain families	8.0	8.2	8.5	8.8	8.4	9.1	9.0	9.1	7.5	7.6	8.0	7.4	8.1	7.7	7.7
Full-time workers	5.5	5.3	5.1	5.3	5.2	5.2	5.1	5.1	4.8	4.7	4.9	4.7	4.7	4.8	4.6
Part-time workers	6.0	5.8	5.6	5.6	5.8	5.7	6.0	5.7	5.7	5.2	5.3	5.4	5.6	5.5	5.2
Industry															
Nonagricultural wage and salary workers	5.8	5.5	5.3	5.5	5.4	5.4	5.3	5.2	5.0	5.0	5.0	4.9	5.0	5.1	4.8
Mining	5.2	5.1	5.8	4.9	7.6	6.0	4.2	4.0	2.0	3.0	2.3	3.8	5.3	2.9	6.0
Construction	11.5	10.1	9.6	10.3	9.4	10.1	9.0	9.6	8.7	8.4	8.5	8.7	9.3	8.6	8.7
Manufacturing	4.9	4.8	4.7	4.7	4.8	4.6	4.5	4.3	4.4	4.2	4.1	4.3	4.1	4.2	3.7
Durable goods	4.4	4.5	4.4	4.5	4.7	4.4	4.0	3.6	3.6	3.5	3.5	3.4	3.6	3.3	3.0
Nondurable goods	5.7	5.2	5.1	5.1	5.0	4.8	5.3	5.2	5.8	5.3	5.0	5.5	4.9	5.5	4.7
Transportation and public utilities	4.5	4.1	4.4	3.5	4.0	4.1	4.3	4.1	2.8	3.6	2.9	3.4	3.9	3.9	3.2
Wholesale and retail trade	6.5	6.4	6.2	6.3	6.2	6.4	6.5	6.3	6.2	6.1	6.5	6.0	6.2	6.3	6.2
Finance, insurance, and real estate	3.3	2.7	2.9	2.9	3.1	3.5	3.0	3.2	3.4	3.2	2.5	3.2	3.0	3.0	2.9
Services	5.4	5.4	5.0	5.3	5.2	4.9	5.0	4.8	4.6	4.6	4.8	4.3	4.5	4.7	4.3
Government workers	2.9	2.9	2.9	2.8	3.0	2.9	2.9	2.8	2.4	2.4	2.9	2.8	2.6	2.6	2.4
Agricultural wage and salary workers	11.1	10.2	10.0	10.9	10.3	8.6	8.8	9.5	9.6	7.1	10.6	7.5	9.5	8.9	9.8

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Less than 5 weeks	2,700	2,633	2,556	2,819	2,671	2,801	2,591	2,650	2,354	2,523	2,538	2,352	2,598	2,470	2,639
5 to 14 weeks	2,342	2,287	2,265	2,252	2,357	2,223	2,382	2,380	2,156	2,022	2,211	2,071	2,134	2,142	1,883
15 weeks and over	2,363	2,316	2,294	2,184	2,179	2,155	2,163	2,064	2,092	2,071	2,063	2,157	2,012	2,127	1,983
15 to 26 weeks	1,085	1,053	1,062	1,018	976	943	1,025	1,001	1,058	1,078	1,045	1,082	931	1,035	890
27 weeks and over	1,278	1,262	1,232	1,166	1,203	1,212	1,138	1,063	1,034	993	1,018	1,074	1,082	1,092	1,093
Mean duration, in weeks	16.6	16.7	16.7	16.0	15.8	16.0	16.0	15.3	15.2	15.1	15.1	16.6	15.9	16.0	16.6
Median duration, in weeks	8.3	8.3	8.3	7.7	7.8	7.7	8.4	7.9	8.3	7.7	7.7	8.5	7.8	8.4	7.6

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Job losers[1]	3,476	3,370	3,171	3,261	3,221	3,245	3,163	3,187	2,979	2,902	3,145	2,903	3,064	3,017	2,906
On temporary layoff	1,030	1,021	957	994	987	953	944	1,021	976	871	925	877	865	878	987
Not on temporary layoff	2,446	2,349	2,214	2,267	2,234	2,293	2,218	2,167	2,003	2,031	2,220	2,026	2,199	2,140	1,920
Job leavers	824	774	797	825	845	890	787	784	754	801	829	822	915	868	723
Reentrants	2,525	2,512	2,489	2,523	2,556	2,505	2,648	2,535	2,420	2,306	2,359	2,244	2,144	2,259	2,245
New entrants	579	580	577	586	626	600	647	647	577	574	481	553	544	561	553
Percent of unemployed															
Job losers[1]	46.9	46.6	45.1	45.3	44.4	44.8	43.7	44.6	44.3	44.1	46.2	44.5	46.0	45.0	45.2
On temporary layoff	13.9	14.1	13.6	13.8	13.6	13.2	13.0	14.3	14.5	13.2	13.6	13.4	13.0	13.1	15.4
Not on temporary layoff	33.0	32.5	31.5	31.5	30.8	31.7	30.6	30.3	29.8	30.9	32.6	31.1	33.0	31.9	29.9
Job leavers	11.1	10.7	11.3	11.5	11.7	12.3	10.9	11.0	11.2	12.2	12.2	12.6	13.7	12.9	11.2
Reentrants	34.1	34.7	35.4	35.1	35.3	34.6	36.6	35.4	36.0	35.0	34.6	34.4	32.2	33.7	34.9
New entrants	7.8	8.0	8.2	8.1	8.6	8.3	8.9	9.0	8.6	8.7	7.1	8.5	8.2	8.4	8.6
Percent of civilian labor force															
Job losers[1]	2.6	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.3	2.1	2.2	2.2	2.1
Job leavers	.6	.6	.6	.6	.6	.7	.6	.6	.6	.6	.6	.6	.7	.6	.5
Reentrants	1.9	1.9	1.8	1.9	1.9	1.8	2.0	1.9	1.8	1.7	1.7	1.6	1.6	1.7	1.6
New entrants	.4	.4	.4	.4	.5	.4	.5	.5	.4	.4	.4	.4	.4	.4	.4

[1] Includes persons who completed temporary jobs.

9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and over	5.6	5.4	5.2	5.3	5.3	5.4	5.3	5.2	4.9	4.8	5.0	4.8	4.9	4.9	4.7
16 to 24 years	12.1	12.0	11.7	11.9	11.9	12.2	12.0	11.8	11.4	10.9	11.5	10.9	11.3	11.3	11.1
16 to 19 years	17.3	16.7	16.3	16.8	16.5	17.0	17.5	16.4	15.4	15.6	16.8	16.4	16.4	16.7	15.3
16 to 17 years	20.2	18.9	18.0	17.0	19.3	17.7	19.7	19.4	18.5	18.4	17.3	17.5	17.7	19.5	17.3
18 to 19 years	15.3	15.2	15.3	17.0	14.7	16.6	15.2	14.6	13.3	13.7	16.3	15.8	15.6	14.6	14.1
20 to 24 years	9.1	9.3	8.9	9.0	9.1	9.4	8.7	9.0	9.0	8.2	8.4	7.7	8.3	8.1	8.6
25 years and over	4.3	4.2	4.0	4.1	4.1	4.0	4.1	4.0	3.7	3.7	3.8	3.7	3.7	3.8	3.6
25 to 54 years	4.5	4.3	4.2	4.2	4.2	4.2	4.2	4.1	3.8	3.8	3.9	3.8	3.8	3.9	3.7
55 years and over	3.7	3.4	3.2	3.1	3.3	3.1	3.0	3.3	3.0	2.9	3.1	3.0	3.0	3.1	2.8
Men, 16 years and over	5.6	5.4	5.1	5.2	5.1	5.4	5.1	5.2	4.9	4.5	5.0	4.8	4.8	4.9	4.8
16 to 24 years	12.5	12.6	12.3	12.5	12.3	12.9	12.0	12.2	11.8	10.3	12.1	11.4	12.0	12.1	12.2
16 to 19 years	18.4	18.1	18.1	18.4	17.4	18.4	17.9	17.9	17.2	15.2	19.0	17.2	17.8	17.5	16.3
16 to 17 years	21.1	20.8	19.6	18.9	20.6	20.4	19.6	21.4	20.5	17.8	19.9	18.6	17.5	18.9	18.0
18 to 19 years	16.5	16.3	17.1	19.0	15.4	17.1	15.4	15.7	15.2	13.5	18.2	16.2	18.1	16.5	14.9
20 to 24 years	9.2	9.5	8.9	9.2	9.3	9.8	8.6	8.9	8.7	7.5	8.2	8.1	8.7	9.1	9.8
25 years and over	4.3	4.1	3.8	3.9	3.8	4.0	3.9	3.9	3.7	3.4	3.7	3.5	3.6	3.5	3.5
25 to 54 years	4.4	4.2	4.0	4.0	3.9	4.1	4.0	3.9	3.8	3.5	3.8	3.6	3.6	3.6	3.6
55 years and over	3.7	3.3	3.0	3.1	3.4	3.2	3.3	3.5	3.0	2.8	3.1	3.0	3.0	2.9	2.9
Women, 16 years and over	5.6	5.4	5.3	5.5	5.5	5.3	5.5	5.3	4.9	5.2	5.0	4.9	5.0	5.1	4.6
16 to 24 years	11.6	11.3	11.0	11.3	11.4	11.4	11.9	11.3	10.9	11.6	10.8	10.4	10.5	10.3	9.9
16 to 19 years	16.1	15.2	14.4	15.2	15.5	15.5	16.9	14.9	13.6	16.0	14.4	15.5	15.0	15.8	14.3
16 to 17 years	19.2	16.9	16.2	15.1	18.1	14.9	19.7	17.1	16.5	19.0	14.4	16.4	17.8	20.1	16.5
18 to 19 years	14.0	14.0	13.4	15.0	14.0	16.2	15.0	13.3	11.3	13.8	14.3	15.4	13.1	12.6	13.2
20 to 24 years	9.0	9.0	8.9	8.9	8.9	8.9	8.8	9.1	9.3	8.9	8.6	7.3	7.8	7.1	7.3
25 years and over	4.4	4.3	4.2	4.3	4.5	4.1	4.2	4.2	3.8	4.0	3.9	3.9	4.0	4.1	3.6
25 to 54 years	4.5	4.4	4.4	4.5	4.7	4.3	4.5	4.3	3.9	4.2	4.0	4.1	4.1	4.2	3.8
55 years and over	3.6	3.5	3.4	3.0	3.3	2.9	2.6	3.1	3.0	3.0	3.2	3.0	3.0	3.4	2.6

10. Unemployment rates by State, seasonally adjusted

State	Sept. 1996	Aug. 1997	Sept. 1997[p]	State	Sept. 1996	Aug. 1997	Sept. 1997[p]
Alabama	4.9	4.8	4.9	Missouri	4.6	3.6	4.0
Alaska	7.8	7.6	7.5	Montana	5.1	5.1	4.9
Arizona	5.8	4.4	4.2	Nebraska	2.9	2.5	2.6
Arkansas	5.6	5.3	5.2	Nevada	5.7	4.4	4.4
California	7.1	6.2	6.3	New Hampshire	4.3	2.7	2.8
Colorado	4.2	3.2	3.4	New Jersey	6.2	5.2	5.4
Connecticut	5.7	4.6	4.6	New Mexico	8.2	6.1	6.1
Delaware	5.4	4.2	3.7	New York	6.1	6.4	6.4
District of Columbia	8.5	8.0	8.1	North Carolina	4.2	3.8	3.7
Florida	5.0	4.7	4.7	North Dakota	3.1	2.4	2.1
Georgia	4.7	4.4	4.5	Ohio	4.9	4.3	4.4
Hawaii	6.4	6.1	5.9	Oklahoma	4.0	3.9	3.8
Idaho	5.1	5.2	5.0	Oregon	6.0	5.5	5.4
Illinois	5.3	4.5	4.5	Pennsylvania	5.1	5.3	5.3
Indiana	4.0	3.5	3.6	Rhode Island	4.9	4.9	4.9
Iowa	3.8	2.7	2.7	South Carolina	6.2	4.7	4.6
Kansas	4.6	3.7	3.8	South Dakota	3.2	2.7	2.6
Kentucky	5.6	5.3	5.2	Tennessee	5.0	5.1	5.4
Louisiana	6.8	6.0	5.7	Texas	5.5	5.4	5.3
Maine	5.0	4.7	4.7	Utah	3.5	3.1	2.8
Maryland	4.8	4.5	4.7	Vermont	4.6	3.8	3.7
Massachusetts	4.1	4.3	4.0	Virginia	4.4	4.2	4.0
Michigan	4.8	3.7	4.0	Washington	6.5	5.0	5.2
Minnesota	4.1	3.2	3.2	West Virginia	7.5	6.7	6.3
Mississippi	5.9	5.5	5.9	Wisconsin	3.4	3.6	3.7
				Wyoming	5.0	4.6	4.2

[p] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

[In thousands]

State	Sept. 1996	Aug. 1997	Sept. 1997[p]	State	Sept. 1996	Aug. 1997	Sept. 1997[p]
Alabama	1,829.8	1,846.4	1,844.7	Missouri	2,558.5	2,610.5	2,613.9
Alaska	262.8	266.7	266.6	Montana	357.4	364.4	363.2
Arizona	1,922.6	1,982.2	1,993.4	Nebraska	835.3	847.4	854.4
Arkansas	1,087.7	1,096.0	1,099.2	Nevada	856.9	896.9	903.9
California	12,840.1	13,150.2	13,202.0	New Hampshire	563.3	576.2	572.6
Colorado	1,911.5	1,938.9	1,948.1	New Jersey	3,658.6	3,697.7	3,717.8
Connecticut	1,590.9	1,620.5	1,622.6	New Mexico	695.0	707.1	708.7
Delaware	378.6	389.5	392.3	New York	7,939.9	8,018.1	8,041.4
District of Columbia	620.7	614.1	612.4	North Carolina	3,571.2	3,631.4	3,647.0
Florida	6,228.7	6,414.9	6,457.8	North Dakota	310.4	318.4	318.8
Georgia	3,527.7	3,622.8	3,644.5	Ohio	5,310.1	5,360.1	5,360.9
Hawaii	528.4	529.0	530.6	Oklahoma	1,359.1	1,402.1	1,401.4
Idaho	494.1	502.1	498.7	Oregon	1,488.0	1,527.3	1,531.3
Illinois	5,700.5	5,753.4	5,764.5	Pennsylvania	5,339.7	5,414.6	5,450.2
Indiana	2,828.6	2,850.6	2,843.3	Rhode Island	445.1	445.9	448.3
Iowa	1,375.6	1,403.0	1,403.2	South Carolina	1,681.9	1,708.3	1,711.4
Kansas	1,230.1	1,263.7	1,267.1	South Dakota	350.0	353.2	354.5
Kentucky	1,674.0	1,706.4	1,716.5	Tennessee	2,543.4	2,550.5	2,561.5
Louisiana	1,819.4	1,837.0	1,841.2	Texas	8,280.4	8,486.1	8,514.3
Maine	542.1	551.2	553.5	Utah	962.7	997.6	1,003.2
Maryland	2,214.5	2,246.7	2,255.2	Vermont	274.6	278.2	278.6
Massachusetts	3,058.9	3,117.6	3,128.0	Virginia	3,144.9	3,219.5	3,226.8
Michigan	4,367.5	4,402.0	4,417.2	Washington	2,423.7	2,512.9	2,518.7
Minnesota	2,442.6	2,489.4	2,493.8	West Virginia	699.2	711.2	712.3
Mississippi	1,095.3	1,104.6	1,103.0	Wisconsin	2,615.1	2,651.6	2,658.3
				Wyoming	222.1	221.2	222.2

[p] = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the data base.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
TOTAL	117,191	119,523	120,248	120,450	120,659	120,909	121,162	121,344	121,671	121,834	122,056	122,440	122,492	122,761	123,045
PRIVATE SECTOR	97,885	100,076	100,759	100,956	101,145	101,380	101,615	101,799	102,092	102,269	102,417	102,721	102,688	103,018	103,300
GOODS-PRODUCING	24,265	24,431	24,479	24,508	24,540	24,581	24,653	24,670	24,667	24,702	24,714	24,713	24,765	24,756	24,827
Mining	581	574	570	571	571	574	574	572	573	576	574	574	573	576	573
Metal mining	51	54	54	54	54	55	54	54	54	54	54	54	54	54	53
Oil and gas extraction	320	317	315	316	316	317	319	317	319	321	320	321	321	323	322
Nonmetallic minerals, except fuels	105	106	108	109	109	108	108	108	107	108	108	108	107	108	107
Construction	5,160	5,400	5,467	5,495	5,521	5,542	5,604	5,609	5,599	5,628	5,622	5,625	5,637	5,637	5,657
General building contractors	1,207	1,254	1,265	1,272	1,281	1,287	1,298	1,298	1,297	1,300	1,302	1,308	1,306	1,304	1,316
Heavy construction, except building	752	770	771	773	772	774	791	777	767	777	766	761	764	764	758
Special trades contractors	3,201	3,377	3,431	3,450	3,468	3,481	3,515	3,534	3,535	3,551	3,554	3,556	3,567	3,569	3,583
Manufacturing	18,524	18,457	18,442	18,442	18,448	18,465	18,475	18,489	18,495	18,498	18,518	18,514	18,555	18,543	18,597
Production workers	12,826	12,749	12,731	12,737	12,743	12,758	12,762	12,771	12,774	12,790	12,791	12,792	12,815	12,811	12,868
Durable goods	10,683	10,766	10,780	10,791	10,803	10,821	10,836	10,848	10,856	10,864	10,891	10,910	10,957	10,944	10,990
Production workers	7,317	7,370	7,379	7,390	7,398	7,417	7,427	7,437	7,440	7,454	7,466	7,482	7,525	7,512	7,556
Lumber and wood products	769	780	785	787	788	789	793	797	799	800	797	796	798	798	798
Furniture and fixtures	510	504	503	504	505	506	507	507	506	508	508	510	506	508	511
Stone, clay, and glass products	540	541	542	541	543	543	543	542	541	540	538	541	541	541	542
Primary metal industries	712	711	707	708	707	708	708	709	710	708	709	708	711	712	713
Fabricated metal products	1,437	1,448	1,455	1,457	1,458	1,460	1,462	1,463	1,468	1,468	1,470	1,468	1,475	1,477	1,481
Industrial machinery and equipment	2,067	2,112	2,115	2,115	2,119	2,126	2,132	2,136	2,142	2,146	2,152	2,155	2,165	2,164	2,177
Computer and office equipment	352	363	364	365	366	367	370	372	375	378	379	381	385	384	385
Electronic and other electrical equipment	1,625	1,651	1,650	1,649	1,647	1,645	1,645	1,645	1,643	1,644	1,651	1,658	1,661	1,663	1,669
Electronic components and accessories	581	610	609	609	609	610	612	614	618	622	628	632	637	640	645
Transportation equipment	1,790	1,781	1,783	1,790	1,793	1,802	1,804	1,810	1,804	1,809	1,824	1,826	1,855	1,839	1,855
Motor vehicles and equipment	971	963	959	960	961	966	964	969	957	960	967	965	985	972	978
Aircraft and parts	451	460	470	475	479	483	487	491	495	498	505	510	514	515	518
Instruments and related products	843	854	855	854	856	854	854	853	855	854	856	859	858	858	861
Miscellaneous manufacturing industries	390	387	385	386	387	388	388	386	388	387	386	389	387	384	383
Nondurable goods	7,841	7,691	7,662	7,651	7,645	7,644	7,639	7,641	7,639	7,634	7,627	7,604	7,598	7,599	7,607
Production workers	5,508	5,379	5,352	5,347	5,345	5,341	5,335	5,334	5,334	5,336	5,325	5,310	5,290	5,299	5,312
Food and kindred products	1,692	1,693	1,684	1,688	1,689	1,695	1,694	1,698	1,699	1,693	1,692	1,684	1,679	1,683	1,689
Tobacco products	42	41	42	42	42	41	42	42	41	41	41	41	40	40	41
Textile mill products	663	624	620	616	615	615	612	612	609	609	607	608	604	605	606
Apparel and other textile products	936	864	849	844	840	835	831	827	822	818	816	810	810	803	802
Paper and allied products	693	681	679	679	678	678	678	677	677	677	675	675	675	675	674
Printing and publishing	1,546	1,538	1,539	1,535	1,534	1,534	1,534	1,535	1,541	1,546	1,550	1,549	1,547	1,548	1,551
Chemicals and allied products	1,038	1,032	1,029	1,028	1,028	1,028	1,028	1,028	1,029	1,030	1,027	1,023	1,024	1,025	1,025
Petroleum and coal products	145	142	141	141	140	139	139	140	140	139	138	138	138	138	137
Rubber and miscellaneous plastics products	980	981	985	985	985	985	987	988	988	988	989	986	991	993	993
Leather and leather products	106	96	94	93	94	94	94	94	93	93	92	90	90	89	89
SERVICE-PRODUCING	92,925	95,092	95,769	95,942	96,119	96,328	96,509	96,674	97,004	97,132	97,342	97,727	97,727	98,005	98,218
Transportation and public utilities	6,132	6,261	6,293	6,303	6,288	6,351	6,376	6,405	6,421	6,431	6,434	6,443	6,289	6,459	6,488
Transportation	3,904	4,038	4,072	4,078	4,065	4,121	4,142	4,164	4,179	4,187	4,193	4,202	4,049	4,220	4,241
Railroad transportation	238	231	230	229	228	228	227	226	225	226	230	229	225	226	227
Local and interurban passenger transit	419	439	445	447	449	452	453	455	460	458	457	461	464	461	462
Trucking and warehousing	1,587	1,641	1,648	1,649	1,642	1,656	1,664	1,671	1,676	1,687	1,686	1,692	1,703	1,708	1,712
Water transportation	175	173	173	173	173	175	175	175	177	176	178	176	179	176	181
Transportation by air	1,068	1,122	1,140	1,142	1,133	1,168	1,178	1,191	1,192	1,192	1,192	1,193	1,025	1,196	1,205
Pipelines, except natural gas	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14
Transportation services	401	417	422	424	426	428	431	432	435	434	436	437	439	439	440
Communications and public utilities	2,229	2,223	2,221	2,225	2,223	2,230	2,234	2,241	2,242	2,244	2,241	2,241	2,240	2,239	2,247
Communications	1,318	1,338	1,343	1,347	1,347	1,354	1,358	1,364	1,369	1,372	1,372	1,372	1,376	1,375	1,385
Electric, gas, and sanitary services	911	885	878	878	876	876	876	877	873	872	869	869	864	864	862
Wholesale trade	6,378	6,483	6,538	6,549	6,559	6,570	6,593	6,611	6,622	6,630	6,634	6,664	6,675	6,688	6,710
Retail trade	21,187	21,625	21,791	21,847	21,912	21,917	21,922	21,945	22,029	22,026	22,079	22,159	22,189	22,208	22,245
Building materials and garden supplies	868	892	905	909	914	914	918	922	931	932	928	930	929	926	922
General merchandise stores	2,681	2,726	2,756	2,761	2,769	2,757	2,752	2,783	2,799	2,787	2,798	2,803	2,822	2,819	2,822
Department stores	2,346	2,388	2,416	2,418	2,425	2,420	2,416	2,452	2,446	2,452	2,450	2,458	2,470	2,470	2,477

See footnotes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
Food stores	3,366	3,435	3,458	3,467	3,468	3,474	3,477	3,478	3,480	3,482	3,487	3,502	3,505	3,502	3,52
Automotive dealers and service stations	2,190	2,270	2,295	2,300	2,304	2,307	2,311	2,315	2,319	2,316	2,315	2,318	2,325	2,330	2,33
New and used car dealers	996	1,032	1,043	1,045	1,048	1,051	1,053	1,055	1,055	1,054	1,056	1,055	1,057	1,057	1,06
Apparel and accessory stores	1,125	1,101	1,107	1,107	1,106	1,107	1,103	1,104	1,105	1,099	1,097	1,096	1,102	1,102	1,10
Furniture and home furnishings stores	946	985	1,003	1,010	1,021	1,020	1,022	1,025	1,026	1,032	1,034	1,042	1,044	1,051	1,05
Eating and drinking places	7,354	7,499	7,516	7,530	7,551	7,552	7,556	7,525	7,571	7,572	7,595	7,639	7,618	7,624	7,62
Miscellaneous retail establishments	2,658	2,717	2,751	2,763	2,779	2,786	2,783	2,793	2,798	2,806	2,825	2,829	2,844	2,854	2,86
Finance, insurance, and real estate	6,806	6,899	6,941	6,949	6,962	6,971	6,980	6,992	7,019	7,029	7,034	7,058	7,068	7,079	7,10
Finance	3,231	3,301	3,330	3,334	3,343	3,351	3,355	3,366	3,381	3,389	3,394	3,405	3,414	3,424	3,44
Depository institutions	2,025	2,024	2,028	2,029	2,030	2,032	2,034	2,037	2,041	2,043	2,044	2,048	2,048	2,046	2,05
Commercial banks	1,466	1,466	1,472	1,473	1,475	1,478	1,479	1,482	1,486	1,488	1,487	1,490	1,491	1,490	1,49
Savings institutions	278	263	259	257	256	255	255	254	253	253	254	253	252	251	25
Nondepository institutions	463	516	528	530	532	533	530	534	539	542	543	545	549	554	55
Security and commodity brokers	525	551	562	564	568	572	576	579	583	586	586	592	595	600	60
Holding and other investment offices	217	210	212	211	213	214	215	216	218	218	221	220	222	224	22
Insurance	2,225	2,217	2,219	2,220	2,221	2,218	2,219	2,217	2,221	2,222	2,226	2,230	2,232	2,232	2,23
Insurance carriers	1,529	1,510	1,508	1,507	1,507	1,505	1,503	1,500	1,502	1,503	1,506	1,509	1,510	1,510	1,51
Insurance agents, brokers, and service	696	707	711	713	714	713	716	717	719	719	720	721	722	722	72
Real estate	1,351	1,381	1,392	1,395	1,398	1,402	1,406	1,409	1,417	1,418	1,414	1,423	1,422	1,423	1,42
Services[1]	33,117	34,377	34,717	34,800	34,884	34,990	35,091	35,176	35,334	35,451	35,522	35,684	35,702	35,828	35,92
Agricultural services	582	625	635	639	638	647	649	648	664	669	668	673	675	681	68
Hotels and other lodging places	1,668	1,716	1,726	1,731	1,738	1,743	1,746	1,746	1,756	1,752	1,744	1,747	1,747	1,750	1,76
Personal services	1,163	1,184	1,193	1,194	1,194	1,195	1,197	1,196	1,193	1,189	1,182	1,182	1,185	1,189	1,19
Business services	6,812	7,254	7,379	7,398	7,437	7,476	7,521	7,577	7,594	7,618	7,645	7,682	7,657	7,711	7,73
Services to buildings	882	897	899	896	895	893	897	896	902	903	903	901	894	904	90
Personnel supply services	2,476	2,646	2,711	2,706	2,721	2,743	2,758	2,787	2,752	2,744	2,748	2,767	2,732	2,741	2,75
Help supply services	2,189	2,341	2,398	2,391	2,406	2,427	2,432	2,457	2,419	2,409	2,407	2,425	2,395	2,407	2,40
Computer and data processing services	1,090	1,208	1,236	1,246	1,256	1,268	1,278	1,291	1,306	1,322	1,337	1,347	1,360	1,373	1,38
Auto repair services and parking	1,020	1,084	1,104	1,107	1,112	1,117	1,123	1,126	1,132	1,136	1,131	1,137	1,139	1,144	1,15
Miscellaneous repair services	359	375	376	380	380	380	379	380	382	384	386	387	388	389	38
Motion pictures	488	522	529	528	530	530	532	529	528	532	537	539	550	552	55
Amusement and recreation services	1,417	1,466	1,478	1,481	1,483	1,490	1,495	1,494	1,503	1,542	1,561	1,576	1,563	1,572	1,55
Health services	9,230	9,469	9,532	9,552	9,567	9,586	9,600	9,612	9,644	9,673	9,673	9,697	9,712	9,731	9,75
Offices and clinics of medical doctors	1,609	1,679	1,695	1,700	1,703	1,713	1,720	1,721	1,728	1,740	1,740	1,745	1,745	1,752	1,76
Nursing and personal care facilities	1,691	1,732	1,742	1,745	1,747	1,750	1,751	1,753	1,760	1,764	1,761	1,762	1,765	1,763	1,76
Hospitals	3,772	3,814	3,829	3,834	3,839	3,841	3,846	3,852	3,857	3,864	3,869	3,877	3,884	3,891	3,90
Home health care services	629	665	670	674	673	677	676	678	684	682	682	685	685	686	68
Legal services	921	930	936	939	940	942	943	946	951	952	953	957	957	962	96
Educational services	1,965	2,020	2,035	2,041	2,040	2,042	2,046	2,047	2,062	2,062	2,074	2,089	2,094	2,095	2,10
Social services	2,336	2,403	2,422	2,425	2,426	2,432	2,438	2,445	2,458	2,466	2,474	2,494	2,497	2,508	2,51
Child day care services	563	569	576	576	575	578	579	580	581	587	590	594	600	593	59
Residential care	643	672	679	681	683	684	686	690	694	695	698	702	703	708	71
Museums and botanical and zoological gardens	80	85	86	86	87	87	87	87	87	88	88	88	88	88	8
Membership organizations	2,146	2,185	2,189	2,190	2,191	2,192	2,192	2,193	2,199	2,201	2,202	2,209	2,206	2,204	2,20
Engineering and management services	2,731	2,846	2,882	2,894	2,906	2,916	2,927	2,934	2,965	2,971	2,988	3,010	3,027	3,036	3,05
Engineering and architectural services	815	839	848	852	854	857	862	866	869	869	877	878	881	883	88
Management and public relations	805	873	892	904	911	913	919	923	936	941	950	959	968	965	97
Government	19,305	19,447	19,489	19,494	19,514	19,529	19,547	19,545	19,579	19,565	19,639	19,719	19,804	19,743	19,74
Federal	2,822	2,757	2,732	2,732	2,728	2,723	2,716	2,709	2,708	2,703	2,694	2,689	2,690	2,690	2,68
Federal, except Postal Service	1,978	1,901	1,879	1,874	1,870	1,862	1,861	1,856	1,856	1,851	1,843	1,839	1,830	1,833	1,83
State	4,635	4,624	4,618	4,620	4,621	4,621	4,624	4,622	4,635	4,636	4,640	4,671	4,664	4,676	4,66
Education	1,919	1,924	1,922	1,925	1,927	1,928	1,931	1,929	1,938	1,943	1,950	1,972	1,961	1,974	1,95
Other State government	2,715	2,700	2,696	2,695	2,694	2,693	2,693	2,693	2,697	2,693	2,690	2,699	2,703	2,702	2,71
Local	11,849	12,066	12,139	12,142	12,165	12,185	12,207	12,214	12,236	12,226	12,305	12,359	12,450	12,377	12,39
Education	6,606	6,748	6,797	6,807	6,815	6,831	6,849	6,853	6,858	6,850	6,902	6,954	7,030	6,971	6,96
Other local government	5,243	5,318	5,342	5,335	5,350	5,354	5,358	5,361	5,378	5,376	5,403	5,405	5,420	5,406	5,43

[1] Includes other industries not shown separately.

[P] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR	34.5	34.4	34.4	34.5	34.7	34.4	34.8	34.8	34.5	34.5	34.6	34.4	34.6	34.5	34.5
GOODS-PRODUCING	41.0	41.1	41.1	41.1	41.3	41.1	41.2	41.4	41.4	41.4	41.1	41.2	41.1	41.2	41.3
MINING	44.7	45.3	45.4	45.3	45.7	44.7	45.8	45.9	45.3	46.0	45.4	45.4	45.5	44.9	44.9
MANUFACTURING	41.6	41.6	41.7	41.7	42.0	41.8	41.9	42.1	42.1	42.0	41.8	41.8	41.8	41.8	42.0
Overtime hours	4.4	4.5	4.5	4.6	4.7	4.7	4.7	4.9	4.9	4.8	4.6	4.7	4.7	4.7	4.8
Durable goods	42.4	42.4	42.4	42.5	42.7	42.5	42.7	42.9	43.0	42.8	42.6	42.6	42.7	42.6	42.8
Overtime hours	4.7	4.8	4.7	4.8	4.9	5.0	5.0	5.2	5.3	5.2	5.0	5.0	5.0	5.0	5.1
Lumber and wood products	40.6	40.8	40.8	40.9	41.0	40.7	40.8	41.0	41.2	41.0	41.0	41.1	40.8	40.9	41.0
Furniture and fixtures	39.6	39.4	39.6	39.8	40.1	39.8	39.9	40.3	40.1	40.4	39.9	40.0	40.0	40.3	39.8
Stone, clay, and glass products	43.0	43.3	43.3	43.2	43.4	42.6	43.3	43.1	43.0	43.4	42.9	43.1	43.0	43.2	43.1
Primary metal industries	44.0	44.2	44.4	44.3	44.6	44.4	44.6	44.8	45.1	44.8	44.7	44.4	45.0	44.9	45.1
Blast furnaces and basic steel products	44.4	44.5	44.6	44.6	44.6	44.7	44.6	44.8	45.2	44.7	44.5	44.3	45.2	44.9	45.5
Fabricated metal products	42.4	42.4	42.3	42.3	42.4	42.4	42.5	42.6	42.9	42.6	42.4	42.4	42.3	42.3	42.4
Industrial machinery and equipment	43.4	43.1	43.0	43.1	43.3	43.2	43.4	43.5	43.9	43.6	43.3	43.4	43.4	43.6	43.5
Electronic and other electrical equipment	41.6	41.5	41.5	41.5	41.8	41.3	41.9	42.1	42.3	42.0	42.0	42.0	41.7	41.7	42.2
Transportation equipment	43.8	44.0	44.0	44.3	44.6	44.7	44.6	45.0	44.8	44.5	44.2	43.7	44.3	43.7	44.4
Motor vehicles and equipment	44.9	44.9	44.8	44.9	45.2	45.6	45.3	45.7	45.3	45.2	44.8	44.0	44.7	43.9	45.1
Instruments and related products	41.4	41.7	41.8	41.9	42.0	41.6	42.1	42.0	41.9	41.9	41.8	41.7	42.3	42.0	42.1
Miscellaneous manufacturing	39.9	39.7	39.8	39.9	40.4	39.9	40.5	40.2	40.5	40.3	40.1	40.4	40.2	40.3	40.3
Nondurable goods	40.5	40.5	40.6	40.7	40.9	40.7	40.8	40.9	40.9	40.8	40.6	40.6	40.7	40.8	40.9
Overtime hours	4.0	4.1	4.1	4.2	4.3	4.2	4.3	4.4	4.4	4.3	4.1	4.3	4.2	4.3	4.4
Food and kindred products	41.1	41.0	41.1	41.1	41.3	41.2	41.3	41.3	41.1	41.4	40.9	41.1	41.0	41.0	41.3
Textile mill products	40.8	40.6	40.9	41.2	41.5	41.2	40.9	41.2	41.7	41.4	41.2	41.3	41.2	41.5	41.4
Apparel and other textile products	37.0	37.0	37.3	37.3	37.4	37.2	37.2	37.5	37.5	37.1	37.4	36.9	37.1	37.3	37.2
Paper and allied products	43.1	43.3	43.4	43.6	43.7	43.7	43.7	43.8	43.9	43.8	43.4	43.5	43.4	43.5	43.8
Printing and publishing	38.2	38.2	38.2	38.2	38.4	38.3	38.5	38.6	38.5	38.3	38.3	38.4	38.3	38.7	38.6
Chemicals and allied products	43.2	43.2	43.1	43.3	43.5	43.2	43.3	43.3	43.1	43.3	43.1	43.0	43.3	43.3	43.8
Rubber and miscellaneous plastics products	41.5	41.5	41.5	41.3	41.8	41.4	41.7	41.8	42.0	41.6	41.5	41.7	41.7	41.4	41.8
Leather and leather products	38.0	38.1	38.6	38.9	38.8	38.4	38.9	38.7	38.5	38.2	38.1	38.4	38.0	38.5	37.6
SERVICE-PRODUCING	32.7	32.7	32.6	32.7	33.0	32.7	33.0	33.0	32.7	32.7	32.9	32.7	32.9	32.7	32.7
TRANSPORTATION AND PUBLIC UTILITIES	39.4	39.6	39.6	39.8	39.9	39.5	39.7	39.8	39.3	39.5	39.6	39.0	40.1	39.1	39.3
WHOLESALE TRADE	38.3	38.3	38.2	38.3	38.5	38.2	38.6	38.6	38.4	38.4	38.5	38.3	38.4	38.3	38.4
RETAIL TRADE	28.8	28.8	28.8	28.9	29.0	28.8	29.1	29.1	28.9	28.9	28.9	28.8	29.1	28.8	28.9

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR (in current dollars)	$ 11.43	$ 11.81	$11.91	$11.98	$12.03	$12.05	$12.10	$12.14	$12.14	$12.19	$12.23	$12.24	$12.31	$12.35	$12.41
Goods-producing	13.04	13.47	13.57	13.62	13.69	13.73	13.76	13.79	13.80	13.85	13.86	13.86	13.94	13.98	14.07
Mining	15.30	15.61	15.67	15.77	15.88	15.98	15.96	15.94	15.96	16.05	16.12	16.10	16.07	16.20	16.30
Construction	15.09	15.46	15.58	15.58	15.69	15.73	15.79	15.80	15.86	15.91	15.95	15.96	16.03	16.10	16.13
Manufacturing	12.37	12.78	12.87	12.93	12.99	13.02	13.03	13.07	13.07	13.11	13.12	13.11	13.20	13.22	13.35
Excluding overtime	11.74	12.12	12.21	12.26	12.29	12.34	12.35	12.37	12.38	12.38	12.42	12.41	12.50	12.50	12.61
Service-producing	10.88	11.25	11.35	11.43	11.47	11.49	11.54	11.59	11.58	11.63	11.69	11.70	11.77	11.81	11.85
Transportation and public utilities	14.13	14.44	14.43	14.53	14.56	14.74	14.64	14.73	14.76	14.80	14.85	14.95	15.01	14.99	14.99
Wholesale trade	12.43	12.87	12.93	13.08	13.17	13.12	13.23	13.30	13.27	13.33	13.42	13.38	13.54	13.52	13.53
Retail trade	7.69	7.99	8.10	8.13	8.16	8.19	8.21	8.25	8.26	8.28	8.30	8.32	8.36	8.42	8.44
Finance, insurance, and real estate	12.32	12.79	12.86	12.98	13.00	12.95	13.08	13.12	13.00	13.18	13.29	13.30	13.49	13.46	13.59
Services	11.39	11.79	11.91	11.99	12.04	12.05	12.12	12.16	12.16	12.20	12.26	12.26	12.33	12.36	12.42
PRIVATE SECTOR (in constant (1982) dollars)	7.39	7.43	7.42	7.44	7.45	7.46	7.47	7.49	7.49	7.52	7.54	7.53	7.56	7.56	–

– Data not available.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

15. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]
PRIVATE SECTOR	$ 11.43	$ 11.81	$11.95	$12.00	$12.06	$12.11	$12.14	$12.17	$12.17	$12.17	$12.17	$12.15	$12.21	$12.39	$12.43
MINING	15.30	15.61	15.54	15.67	15.95	16.18	16.06	15.98	16.05	15.98	16.11	16.03	15.94	16.23	16.18
CONSTRUCTION	15.09	15.46	15.75	15.62	15.66	15.73	15.69	15.67	15.75	15.83	15.88	16.00	16.09	16.27	16.30
MANUFACTURING	12.37	12.78	12.83	12.93	13.07	13.04	13.02	13.08	13.09	13.09	13.10	13.11	13.15	13.24	13.29
Durable goods	12.94	13.34	13.42	13.49	13.64	13.62	13.58	13.64	13.64	13.64	13.66	13.62	13.71	13.81	13.89
Lumber and wood products	10.12	10.44	10.56	10.57	10.61	10.58	10.60	10.60	10.64	10.71	10.77	10.82	10.80	10.87	10.86
Furniture and fixtures	9.82	10.15	10.28	10.28	10.43	10.38	10.34	10.43	10.42	10.47	10.51	10.53	10.59	10.71	10.69
Stone, clay, and glass products	12.41	12.82	12.91	12.96	12.93	12.99	13.05	13.03	13.06	13.12	13.13	13.20	13.21	13.28	13.31
Primary metal industries	14.62	14.97	15.09	15.18	15.15	15.12	15.09	15.16	15.15	15.09	15.16	15.28	15.17	15.26	15.33
Blast furnaces and basic steel products	17.33	17.79	17.94	18.05	17.92	17.71	17.73	17.86	17.88	17.84	17.99	18.09	17.97	18.28	18.34
Fabricated metal products	12.13	12.52	12.55	12.62	12.79	12.75	12.75	12.78	12.80	12.78	12.77	12.69	12.79	12.86	12.88
Industrial machinery and equipment	13.24	13.59	13.70	13.80	13.97	13.91	13.88	13.93	13.94	13.92	13.95	14.01	14.02	14.15	14.18
Electronic and other electrical equipment	11.69	12.18	12.33	12.36	12.54	12.46	12.42	12.49	12.55	12.56	12.59	12.69	12.75	12.87	12.91
Transportation equipment	16.74	17.20	17.25	17.35	17.57	17.46	17.40	17.51	17.48	17.47	17.45	17.23	17.47	17.62	17.93
Motor vehicles and equipment	17.34	17.75	17.73	17.85	18.12	18.02	17.88	18.01	18.01	17.97	17.92	17.54	17.86	18.07	18.50
Instruments and related products	12.71	13.14	13.27	13.34	13.39	13.38	13.39	13.47	13.47	13.52	13.55	13.54	13.52	13.67	13.68
Miscellaneous manufacturing	10.05	10.38	10.47	10.59	10.59	10.59	10.56	10.56	10.53	10.52	10.50	10.52	10.57	10.65	10.63
Nondurable goods	11.58	11.97	12.00	12.12	12.24	12.20	12.19	12.25	12.27	12.27	12.27	12.37	12.33	12.40	12.41
Food and kindred products	10.93	11.20	11.16	11.38	11.46	11.41	11.32	11.40	11.45	11.48	11.45	11.52	11.51	11.51	11.47
Tobacco products	19.41	19.34	17.73	18.60	18.67	18.56	18.52	19.40	20.32	20.76	21.10	20.95	19.78	18.12	17.74
Textile mill products	9.41	9.69	9.73	9.77	9.92	9.93	9.89	9.92	9.94	9.94	9.97	10.01	10.01	10.09	10.08
Apparel and other textile products	7.64	7.96	8.03	8.01	8.15	8.12	8.19	8.24	8.21	8.23	8.25	8.20	8.23	8.34	8.36
Paper and allied products	14.23	14.67	14.74	14.86	14.95	14.84	14.78	14.93	15.00	14.98	14.99	15.18	15.13	15.19	15.21
Printing and publishing	12.33	12.65	12.81	12.83	12.90	12.86	12.90	13.01	12.99	12.93	12.90	13.01	13.07	13.21	13.19
Chemicals and allied products	15.62	16.17	16.28	16.38	16.45	16.37	16.49	16.42	16.42	16.47	16.54	16.59	16.57	16.62	16.67
Petroleum and coal products	19.36	19.32	19.35	19.61	20.26	20.13	20.42	20.51	19.97	19.98	19.94	20.02	19.99	20.28	20.30
Rubber and miscellaneous plastics products	10.91	11.24	11.28	11.33	11.51	11.49	11.45	11.50	11.53	11.50	11.53	11.57	11.57	11.64	11.65
Leather and leather products	8.17	8.56	8.71	8.73	8.83	8.83	8.91	8.86	8.87	8.89	8.91	8.75	8.87	9.07	9.09
TRANSPORTATION AND PUBLIC UTILITIES	14.13	14.44	14.49	14.57	14.60	14.71	14.66	14.70	14.77	14.72	14.78	14.95	15.00	15.05	15.03
WHOLESALE TRADE	12.43	12.87	12.94	13.06	13.20	13.18	13.26	13.28	13.33	13.32	13.36	13.37	13.47	13.52	13.54
RETAIL TRADE	7.69	7.99	8.12	8.13	8.16	8.24	8.24	8.27	8.28	8.27	8.27	8.27	8.29	8.44	8.45
FINANCE, INSURANCE, AND REAL ESTATE	12.32	12.79	12.87	12.97	13.02	12.99	13.15	13.20	13.09	13.18	13.23	13.18	13.35	13.44	13.53
SERVICES	11.39	11.79	11.93	12.04	12.16	12.19	12.24	12.24	12.20	12.17	12.15	12.07	12.12	12.37	12.42

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[P]	Oct.[P]
PRIVATE SECTOR															
Current dollars	$ 394.34	$ 406.26	$412.28	$414.00	$420.89	$410.53	$418.83	$421.08	$418.65	$419.87	$424.73	$421.61	$427.35	$429.93	$430.08
Seasonally adjusted	–	–	409.70	413.31	417.44	414.52	421.08	422.47	418.83	420.56	423.16	421.06	425.93	426.08	428.15
Constant (1982) dollars	255.07	255.51	256.87	257.30	261.58	254.51	258.86	259.93	258.11	258.86	261.53	259.45	262.50	263.12	–
MINING	683.91	707.13	713.29	712.99	733.70	715.16	732.34	730.29	723.86	731.88	737.84	724.56	726.86	738.47	732.95
CONSTRUCTION	587.00	602.94	628.43	606.06	604.48	572.57	588.38	601.73	609.53	628.45	627.26	641.60	638.77	650.80	645.48
MANUFACTURING															
Current dollars	514.59	531.65	537.58	544.35	559.40	541.16	541.63	549.36	547.16	548.47	550.20	540.13	552.30	561.38	560.84
Constant (1982) dollars	332.85	334.37	334.94	338.32	347.67	335.50	334.75	339.11	337.34	338.14	338.79	332.39	339.25	343.56	–
Durable goods	548.66	565.62	573.03	578.72	594.70	576.13	577.15	585.16	582.43	583.79	584.65	570.68	585.42	596.59	597.27
Lumber and wood products	410.87	425.95	437.18	433.37	437.13	418.97	426.12	431.42	438.37	442.32	446.96	441.46	446.04	452.19	449.60
Furniture and fixtures	388.87	399.91	414.28	416.34	433.89	407.93	403.26	416.16	411.59	416.71	419.35	415.94	428.90	440.18	434.01
Stone, clay, and glass products	533.63	555.11	568.04	563.76	557.28	531.29	548.10	553.78	560.27	573.34	572.47	571.56	578.60	588.30	584.31
Primary metal industries	643.28	661.67	670.00	675.51	686.30	672.84	673.01	679.17	677.21	674.52	679.17	670.79	678.10	691.28	691.38
Blast furnaces and basic steel products	769.45	791.66	796.54	814.06	808.19	791.64	787.21	798.34	802.81	797.45	802.35	801.39	805.06	824.43	827.13
Fabricated metal products	514.31	530.85	535.89	542.66	557.64	536.78	539.33	543.15	542.72	543.15	544.00	527.90	543.58	552.98	551.26
Industrial machinery and equipment	574.62	585.73	587.73	597.54	620.27	602.30	603.78	610.13	607.78	605.52	605.43	599.63	604.26	619.77	615.41
Electronic and other electrical equipment	486.30	505.47	514.16	520.36	537.97	513.35	519.16	527.08	524.59	523.75	528.78	522.83	531.68	543.11	544.80
Transportation equipment	733.21	756.80	762.45	772.08	801.19	778.72	770.82	787.95	781.36	780.91	778.27	730.55	773.92	782.33	797.89
Motor vehicles and equipment	778.57	769.98	797.85	806.82	842.58	819.91	804.60	824.86	817.65	817.64	811.78	740.19	798.34	809.54	834.35
Instruments and related products	526.19	547.94	553.36	562.95	575.77	557.95	562.38	568.43	561.70	563.78	567.75	557.85	569.19	575.51	574.56
Miscellaneous manufacturing	401.00	412.09	420.89	427.11	435.25	419.36	423.46	425.57	423.31	420.80	421.05	415.54	425.97	434.52	434.77
Nondurable goods	468.99	484.79	490.80	499.34	509.18	494.10	492.48	498.58	496.94	498.16	499.39	499.75	504.30	513.36	511.29
Food and kindred products	449.22	459.20	465.37	475.68	481.32	464.39	460.72	463.98	462.58	471.83	467.16	473.47	479.97	485.72	480.59
Tobacco products	768.64	773.60	730.48	766.32	782.27	727.55	724.13	758.54	780.29	803.41	827.12	739.54	747.68	708.49	691.86
Textile mill products	383.93	393.41	399.90	407.41	416.64	407.13	398.57	408.70	410.52	409.53	415.75	406.41	416.42	423.78	418.32
Apparel and other textile products	282.68	294.52	301.93	301.98	308.89	299.63	302.21	309.00	305.41	306.16	311.85	300.12	307.80	313.58	314.34
Paper and allied products	613.31	635.21	642.66	655.33	665.28	649.99	639.97	649.46	651.00	650.13	650.57	657.29	656.64	668.36	666.20
Printing and publishing	471.01	483.23	491.90	496.52	503.10	486.11	491.49	503.49	497.52	492.63	490.20	495.68	504.50	517.83	511.77
Chemicals and allied products	674.78	698.54	703.30	715.81	730.38	705.55	710.72	709.34	706.06	709.86	712.87	708.39	712.51	722.97	726.81
Petroleum and coal products	846.03	842.35	843.66	862.84	889.41	905.85	886.23	881.93	846.73	847.15	855.43	854.85	859.57	876.10	872.90
Rubber and miscellaneous plastics products	452.77	466.46	469.25	471.33	490.33	475.69	475.18	480.70	480.80	479.55	480.80	474.37	482.47	487.72	486.97
Leather and leather products	310.46	326.14	339.69	343.09	347.02	332.89	336.80	341.11	337.95	339.60	345.71	330.75	340.61	353.73	344.51
TRANSPORTATION AND PUBLIC UTILITIES	556.72	571.82	575.25	579.89	582.54	570.75	579.07	580.65	578.98	578.50	588.24	589.03	607.50	595.98	592.18
WHOLESALE TRADE	476.07	492.92	495.60	500.20	510.84	499.52	510.51	511.28	510.54	512.82	517.03	512.07	518.60	519.17	521.29
RETAIL TRADE	221.47	230.11	233.04	232.52	239.09	230.72	236.49	237.35	236.81	238.18	243.14	244.50	246.21	244.76	243.36
FINANCE, INSURANCE, AND REAL ESTATE	442.29	459.16	459.46	464.33	477.83	463.74	482.61	481.80	469.93	473.16	484.22	471.84	481.94	481.15	484.37
SERVICES	369.04	382.00	386.53	390.10	397.63	390.08	400.25	399.02	395.28	394.31	398.52	395.90	398.75	402.03	403.65

– Data not available.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 356 industries											
Over 1-month span:												
1994	57.6	61.9	67.1	64.5	57.7	63.9	62.5	62.6	61.4	60.3	63.8	62.4
1995	62.4	60.1	54.5	55.6	48.0	53.9	54.1	59.8	57.0	54.9	57.2	57.9
1996	51.7	64.3	60.1	54.9	62.9	60.5	56.5	59.3	54.4	62.6	58.1	61.0
1997	59.3	59.1	59.0	61.1	57.4	50.7	58.8	58.7	55.5	62.6	–	–
Over 3-month span:												
1994	65.3	69.5	70.4	68.7	67.1	67.0	69.1	69.7	65.7	65.6	67.0	66.2
1995	65.4	62.5	58.7	53.2	54.6	52.4	57.9	59.6	59.7	59.0	57.0	56.3
1996	62.6	63.6	62.6	61.2	62.1	63.1	62.6	58.8	62.8	60.4	64.7	65.0
1997	64.6	62.2	64.2	65.6	59.7	58.7	59.1	63.6	63.6	–	–	–
Over 6-month span:												
1994	71.1	69.8	69.8	70.9	70.1	69.8	69.7	69.4	69.4	67.4	67.7	66.2
1995	66.9	61.4	58.1	56.6	58.1	58.1	56.7	59.8	60.3	59.1	61.5	63.3
1996	62.2	63.5	63.5	63.5	62.6	61.2	65.3	63.6	62.6	64.5	64.2	67.4
1997	67.6	66.6	64.5	64.6	64.3	64.5	66.9	–	–	–	–	–
Over 12-month span:												
1994	70.2	71.6	71.8	71.8	72.1	71.8	71.5	72.1	70.1	69.5	66.6	65.0
1995	63.6	62.4	62.6	63.3	61.7	61.9	58.7	62.2	62.2	61.1	62.2	63.3
1996	63.5	64.7	62.4	62.9	64.7	64.2	65.0	63.1	63.8	66.7	65.7	65.0
1997	67.3	66.2	69.8	69.8	–	–	–	–	–	–	–	–
	Manufacturing payrolls, 139 industries											
Over 1-month span:												
1994	55.8	59.0	60.4	58.6	52.9	58.6	59.4	56.1	52.9	55.0	58.6	58.3
1995	54.3	56.1	44.2	51.4	42.1	42.8	43.5	52.2	47.1	50.0	47.5	50.7
1996	45.7	54.3	47.8	39.2	52.2	52.2	44.2	52.9	44.2	50.7	49.6	52.2
1997	54.0	50.4	52.9	52.9	51.4	49.3	51.8	49.6	54.3	57.6	–	–
Over 3-month span:												
1994	61.9	64.7	65.5	59.7	57.6	60.1	62.2	57.9	55.0	55.4	60.1	59.4
1995	59.7	50.4	47.5	40.3	42.4	36.3	38.5	43.9	49.3	46.4	45.3	43.9
1996	47.5	47.8	42.1	38.5	43.2	45.0	48.9	43.2	50.4	46.4	52.5	52.5
1997	53.2	51.4	50.7	52.5	48.6	48.9	48.6	53.2	54.7	–	–	–
Over 6-month span:												
1994	62.2	62.2	62.6	63.3	59.4	56.5	56.5	58.6	58.6	55.0	58.3	55.0
1995	55.8	48.6	43.9	38.8	39.2	39.6	38.8	39.6	43.9	45.0	44.2	44.6
1996	41.4	41.7	41.0	38.1	39.6	40.6	47.5	46.8	45.3	50.4	48.2	53.2
1997	53.2	53.2	50.4	49.3	48.6	51.4	57.2	–	–	–	–	–
Over 12-month span:												
1994	57.9	58.6	60.8	60.8	60.8	63.3	59.4	60.1	57.2	56.5	50.4	49.6
1995	46.0	44.2	46.0	47.8	41.0	41.7	38.5	38.8	36.3	37.4	38.1	39.9
1996	39.6	42.8	39.2	39.6	42.4	40.3	43.5	40.3	43.5	46.8	46.4	47.1
1997	51.4	47.8	52.5	55.4	–	–	–	–	–	–	–	–

– Data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

18. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1988	1989	1990	1991	1992	1993	1994	1995	1996
Civilian noninstitutional population	184,613	186,393	189,164	190,925	192,805	194,838	196,814	198,584	200,591
Civilian labor force	121,669	123,869	125,840	126,346	128,105	129,200	131,056	132,304	133,943
Labor force participation rate	65.9	66.5	66.5	66.2	66.4	66.3	66.6	66.6	66.8
Employed	114,968	117,342	118,793	117,718	118,492	120,259	123,060	124,900	126,708
Employment-population ratio	62.3	63.0	62.8	61.7	61.5	61.7	62.5	62.9	63.2
Agriculture	3,169	3,199	3,223	3,269	3,247	3,115	3,409	3,440	3,443
Nonagricultural industries	111,800	114,142	115,570	114,499	115,245	117,144	119,651	121,460	123,264
Unemployed	6,701	6,528	7,047	8,628	9,613	8,940	7,996	7,404	7,236
Unemployment rate	5.5	5.3	5.6	6.8	7.5	6.9	6.1	5.6	5.4
Not in the labor force	62,944	62,523	63,324	64,578	64,700	65,638	65,758	66,280	66,647

19. Annual data: Employment levels by industry

[In thousands]

Industry	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total employment	105,210	107,895	109,419	108,256	108,604	110,730	114,172	117,191	119,523
Private sector	87,824	90,117	91,115	89,854	89,959	91,889	95,044	97,885	100,076
Goods-producing	25,125	25,254	24,905	23,745	23,231	23,352	23,908	24,265	24,431
Mining	713	692	709	689	635	610	601	581	574
Construction	5,098	5,171	5,120	4,650	4,492	4,668	4,986	5,160	5,400
Manufacturing	19,314	19,391	19,076	18,406	18,104	18,075	18,321	18,524	18,457
Service-producing	80,086	82,642	84,514	84,511	85,373	87,378	90,264	92,925	95,092
Transportation and public utilities	5,514	5,625	5,793	5,762	5,721	5,829	5,993	6,132	6,261
Wholesale trade	6,030	6,187	6,173	6,081	5,997	5,981	6,162	6,378	6,483
Retail trade	19,023	19,475	19,601	19,284	19,356	19,773	20,507	21,187	21,625
Finance, insurance, and real estate	6,630	6,668	6,709	6,646	6,602	6,757	6,896	6,806	6,899
Services	25,504	26,907	27,934	28,336	29,052	30,197	31,579	33,117	34,377
Government	17,386	17,779	18,304	18,402	18,645	18,841	19,128	19,305	19,447
Federal	2,971	2,988	3,085	2,966	2,969	2,915	2,870	2,822	2,757
State	4,076	4,182	4,305	4,355	4,408	4,488	4,576	4,635	4,624
Local	10,339	10,609	10,914	11,081	11,267	11,438	11,682	11,849	12,066

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1988	1989	1990	1991	1992	1993	1994	1995	1996
Private sector:									
Average weekly hours	34.7	34.6	34.5	34.3	34.4	34.5	34.7	34.5	34.4
Average hourly earnings (in dollars)	9.28	9.66	10.01	10.32	10.57	10.83	11.12	11.43	11.81
Average weekly earnings (in dollars)	322.02	334.24	345.35	353.98	363.61	373.64	385.86	394.34	406.26
Mining:									
Average weekly hours	42.3	43.0	44.1	44.4	43.9	44.3	44.8	44.7	45.3
Average hourly earnings (in dollars)	12.80	13.26	13.68	14.19	14.54	14.60	14.88	15.30	15.61
Average weekly earnings (in dollars)	541.44	570.18	603.29	630.04	638.31	646.78	666.62	683.91	707.13
Construction:									
Average weekly hours	37.9	37.9	38.2	38.1	38.0	38.5	38.9	38.9	39.0
Average hourly earnings (in dollars)	13.08	13.54	13.77	14.00	14.15	14.38	14.73	15.09	15.46
Average weekly earnings (in dollars)	495.73	513.17	526.01	533.40	537.70	553.63	573.00	587.00	602.94
Manufacturing:									
Average weekly hours	41.1	41.0	40.8	40.7	41.0	41.4	42.0	41.6	41.6
Average hourly earnings (in dollars)	10.19	10.48	10.83	11.18	11.46	11.74	12.07	12.37	12.78
Average weekly earnings (in dollars)	418.81	429.68	441.86	455.03	469.86	486.04	506.94	514.59	531.65
Transportation and public utilities:									
Average weekly hours	38.8	38.9	38.9	38.7	38.9	39.6	39.9	39.4	39.6
Average hourly earnings (in dollars)	12.26	12.60	12.97	13.22	13.45	13.62	13.86	14.13	14.44
Average weekly earnings (in dollars)	475.69	490.14	504.53	511.61	523.21	539.35	553.01	556.72	571.82
Wholesale trade:									
Average weekly hours	38.1	38.0	38.1	38.1	38.2	38.2	38.4	38.3	38.3
Average hourly earnings (in dollars)	9.98	10.39	10.79	11.15	11.39	11.74	12.06	12.43	12.87
Average weekly earnings (in dollars)	380.24	394.82	411.10	424.82	435.10	448.47	463.10	476.07	492.92
Retail trade:									
Average weekly hours	29.1	28.9	28.8	28.6	28.8	28.8	28.9	28.8	28.8
Average hourly earnings (in dollars)	6.31	6.53	6.75	6.94	7.12	7.29	7.49	7.69	7.99
Average weekly earnings (in dollars)	183.62	188.72	194.40	198.48	205.06	209.95	216.46	221.47	230.11
Finance, insurance, and real estate:									
Average weekly hours	35.9	35.8	35.8	35.7	35.8	35.8	35.8	35.9	35.9
Average hourly earnings (in dollars)	9.06	9.53	9.97	10.39	10.82	11.35	11.83	12.32	12.79
Average weekly earnings (in dollars)	325.25	341.17	356.93	370.92	387.36	406.33	423.51	442.29	459.16
Services:									
Average weekly hours	32.6	32.6	32.5	32.4	32.5	32.5	32.5	32.4	32.4
Average hourly earnings (in dollars)	8.88	9.38	9.83	10.23	10.54	10.78	11.04	11.39	11.79
Average weekly earnings (in dollars)	289.49	305.79	319.48	331.45	342.55	350.35	358.80	369.04	382.00

21. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
Civilian workers[2]	126.6	127.2	128.3	129.2	130.2	130.9	132.0	132.8	134.1	1.0	3.0
Workers, by occupational group:											
White-collar workers	127.4	128.0	129.1	130.0	131.3	131.9	133.1	133.9	135.2	1.0	3.0
Professional specialty and technical	128.9	129.4	130.6	131.4	132.6	133.1	133.7	134.6	135.8	.9	2.4
Executive, administrative, and managerial	126.7	127.4	128.5	129.1	131.1	131.5	133.2	134.0	135.3	1.0	3.2
Administrative support, including clerical	128.1	129.0	130.1	130.8	132.0	132.6	133.6	134.6	135.8	.9	2.9
Blue-collar workers	125.2	125.8	126.7	127.7	128.3	129.1	129.8	130.9	131.8	.7	2.7
Service occupations	126.7	127.4	128.0	128.7	129.7	131.0	132.0	132.7	134.6	1.4	3.8
Workers, by industry division:											
Goods-producing	126.5	127.4	128.3	129.3	130.1	130.9	131.5	132.7	133.6	.7	2.7
Manufacturing	127.3	128.3	129.3	130.4	131.3	132.1	132.6	133.8	134.6	.6	2.5
Service-producing	126.6	127.1	128.2	129.1	130.2	130.9	132.1	132.9	134.2	1.0	3.1
Services	128.9	129.4	130.4	131.2	132.5	133.2	134.1	134.9	136.5	1.2	3.0
Health services	131.1	132.0	132.5	133.4	134.1	134.4	135.2	135.7	136.7	.7	1.9
Hospitals	130.4	131.4	132.3	132.9	133.6	133.8	134.2	134.6	135.6	.7	1.5
Educational services	129.8	130.2	130.5	130.8	133.2	133.9	134.0	134.2	136.5	1.7	2.5
Public administration[3]	127.4	128.3	129.2	129.6	130.7	131.8	133.0	133.0	134.1	.8	2.6
Nonmanufacturing	126.3	126.8	127.9	128.8	129.8	130.5	131.7	132.5	133.8	1.0	3.1
Private industry workers	126.2	126.7	127.9	129.0	129.8	130.6	131.7	132.8	133.9	.8	3.2
Excluding sales occupations	126.5	127.1	128.3	129.2	130.2	130.8	131.9	133.0	134.1	.8	3.0
Workers, by occupational group:											
White-collar workers	127.0	127.6	129.0	130.0	131.1	131.7	133.1	134.1	135.2	.8	3.1
Excluding sales occupations	127.8	128.6	129.9	130.7	132.0	132.5	133.7	134.8	135.9	.8	3.0
Professional specialty and technical occupations	129.3	129.9	131.6	132.6	133.3	133.7	134.6	135.9	136.7	.6	2.6
Executive, administrative, and managerial occupations	126.2	126.9	128.0	128.8	130.9	131.3	133.0	133.9	135.2	1.0	3.3
Sales occupations	123.2	123.2	124.8	126.9	126.7	128.1	130.1	130.7	132.2	1.1	4.3
Administrative support occupations, including clerical	128.1	129.0	130.1	130.8	132.0	132.5	133.7	134.7	135.9	.9	3.0
Blue-collar workers	125.1	125.6	126.6	127.6	128.1	129.0	129.6	130.8	131.7	.7	2.8
Precision production, craft, and repair occupations	125.4	125.7	126.5	127.7	128.2	129.1	129.6	130.9	131.7	.6	2.7
Machine operators, assemblers, and inspectors	125.1	126.2	127.1	128.1	128.7	129.5	130.0	131.2	132.2	.8	2.7
Transportation and material moving occupations	122.9	123.0	123.9	124.7	124.9	125.2	126.1	126.8	128.0	.9	2.5
Handlers, equipment cleaners, helpers, and laborers	125.9	126.8	128.5	129.3	130.0	131.3	132.8	133.4	134.2	.6	3.2
Service occupations	124.7	125.2	125.8	126.5	127.4	128.9	129.8	130.9	133.1	1.7	4.5
Production and nonsupervisory occupations[4]	125.8	126.3	127.5	128.6	129.2	130.0	131.1	132.1	133.2	.8	3.1
Workers, by industry division:											
Goods-producing	126.5	127.3	128.2	129.3	130.1	130.9	131.4	132.7	133.6	.7	2.7
Excluding sales occupations	126.1	127.0	128.0	129.0	129.8	130.5	131.1	132.3	133.1	.6	2.5
White-collar occupations	128.1	129.0	130.0	131.0	132.2	132.9	133.5	134.8	135.6	.6	2.6
Excluding sales occupations	127.2	128.2	129.4	130.2	131.5	132.1	132.6	133.8	134.5	.5	2.3
Blue-collar occupations	125.5	126.3	127.1	128.3	128.9	129.6	130.2	131.4	132.4	.8	2.7
Construction	123.1	123.4	124.3	125.3	125.9	126.4	127.2	128.7	129.7	.8	3.0
Manufacturing	127.3	128.3	129.3	130.4	131.3	132.1	132.6	133.8	134.6	.6	2.5
White-collar occupations	128.7	129.5	130.5	131.6	132.8	133.6	133.9	135.2	135.8	.4	2.3
Excluding sales occupations	127.4	128.3	129.5	130.5	131.8	132.5	132.8	133.8	134.5	.5	2.0
Blue-collar occupations	126.3	127.5	128.4	129.5	130.2	131.1	131.7	132.8	133.7	.7	2.7
Durables	128.2	129.0	129.7	131.2	131.9	132.6	133.0	134.1	135.0	.7	2.4
Nondurables	125.7	127.0	128.3	128.9	130.0	131.0	131.7	133.0	133.7	.5	2.8
Service-producing	125.8	126.2	127.6	128.6	129.5	130.2	131.6	132.5	133.8	1.0	3.3
Excluding sales occupations	126.6	127.2	128.4	129.2	130.3	130.9	132.2	133.3	134.5	.9	3.2
White-collar occupations	126.5	127.1	128.5	129.6	130.6	131.1	132.7	133.7	134.9	.9	3.3
Excluding sales occupations	128.0	128.7	130.0	130.9	132.2	132.6	134.0	135.1	136.3	.9	3.1
Blue-collar occupations	123.9	124.0	125.2	126.0	126.4	127.3	128.2	129.2	130.0	.6	2.8
Service occupations	124.2	124.8	125.3	126.1	127.1	128.6	129.5	130.6	132.7	1.6	4.4
Transportation and public utilities	126.0	126.6	127.9	128.4	129.3	130.4	131.3	131.7	132.9	.9	2.8
Transportation	124.7	125.1	126.9	127.7	128.2	129.2	130.6	130.9	132.1	.9	3.0
Public utilities	127.5	128.5	128.9	129.1	130.4	131.7	132.0	132.5	133.7	.9	2.5
Communications	127.4	128.3	128.0	127.5	129.1	131.1	130.2	130.5	131.8	1.0	2.1
Electric, gas, and sanitary services	127.7	128.7	130.1	131.1	132.0	132.4	134.2	134.9	136.0	.8	3.0
Wholesale and retail trade	123.8	124.2	125.5	126.4	127.5	128.6	130.1	131.2	132.4	.9	3.8
Excluding sales occupations	124.1	125.0	125.9	126.4	128.0	129.0	130.4	131.9	133.0	.8	3.9
Wholesale trade	126.1	127.0	127.5	129.3	129.9	130.9	132.9	133.8	134.6	.6	3.6
Excluding sales occupations	126.2	127.1	127.4	128.7	130.0	130.9	132.6	133.7	134.5	.6	3.5
Retail trade	122.6	122.7	124.5	124.8	126.2	127.4	128.5	129.7	131.1	1.1	3.9
Food stores	121.8	122.4	123.6	124.4	127.0	128.4	128.2	128.2	129.8	1.2	2.2
General merchandise stores	121.0	121.7	122.4	123.6	124.6	126.3	126.4	127.7	128.6	.7	3.2

See footnotes at end of table.

21. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
Finance, insurance, and real estate	122.7	123.1	124.5	126.3	126.7	126.0	128.6	129.4	130.5	0.9	3.0
Excluding sales occupations	125.4	125.7	127.5	128.5	129.7	129.2	131.5	132.4	133.5	.8	2.9
Banking, savings and loan, and other credit agencies	124.8	124.4	126.9	128.2	130.3	128.0	130.6	131.6	133.1	1.1	2.1
Insurance	124.9	125.9	127.6	128.2	129.3	129.6	131.9	132.1	133.1	.8	2.9
Services	128.9	129.4	130.7	131.7	132.7	133.4	134.6	135.7	137.0	1.0	3.2
Business services	125.7	126.3	128.9	129.2	130.2	131.8	133.3	134.2	136.3	1.6	4.7
Health services	131.3	132.2	132.6	133.5	134.2	134.5	135.5	135.9	137.0	.8	2.1
Hospitals	130.3	131.3	132.2	132.8	133.4	133.7	134.0	134.4	135.4	.7	1.5
Educational services	133.2	133.7	134.4	134.8	137.5	138.0	138.5	138.8	141.6	2.0	3.0
Colleges and universities	134.6	135.2	135.9	136.2	138.6	139.1	139.5	139.9	142.5	1.9	2.8
Nonmanufacturing	125.5	125.9	127.2	128.2	129.1	129.8	131.1	132.1	133.3	.9	3.3
White-collar workers	126.5	127.0	128.5	129.5	130.5	131.1	132.7	133.6	134.9	1.0	3.4
Excluding sales occupations	128.0	128.6	130.0	130.8	132.1	132.5	134.0	135.1	136.2	.8	3.1
Blue-collar occupations	123.5	123.7	124.6	125.6	125.9	126.7	127.5	128.6	129.4	.6	2.8
Service occupations	124.2	124.7	125.3	126.0	127.0	128.6	129.4	130.5	132.7	1.7	4.5
State and local government workers	128.7	129.3	129.9	130.2	131.9	132.7	133.2	133.3	135.0	1.3	2.4
Workers, by occupational group:											
White-collar workers	128.6	129.1	129.6	129.9	131.8	132.5	132.9	133.0	134.8	1.4	2.3
Professional specialty and technical	128.4	128.8	129.1	129.5	131.6	132.3	132.5	132.5	134.6	1.6	2.3
Executive, administrative, and managerial	129.1	129.9	130.7	131.0	132.0	132.9	134.1	134.4	135.6	.9	2.7
Administrative support, including clerical	128.4	129.1	130.0	130.4	131.8	133.0	133.3	133.5	135.3	1.3	2.7
Blue-collar workers	127.2	128.0	129.0	129.5	130.3	131.2	132.1	132.3	133.3	.8	2.3
Workers, by industry division:											
Services	129.2	129.6	130.0	130.3	132.4	133.1	133.2	133.3	135.4	1.6	2.3
Services excluding schools[5]	128.9	129.4	130.3	130.8	131.9	132.0	132.5	132.9	134.4	1.1	1.9
Health services	131.0	131.6	132.5	133.1	134.0	134.1	134.5	134.9	136.0	.8	1.5
Hospitals	131.1	131.7	132.6	133.2	134.2	134.3	134.8	135.2	136.3	.8	1.6
Educational services	129.0	129.4	129.7	130.0	132.3	133.0	133.1	133.2	135.4	1.7	2.3
Schools	129.4	129.8	130.0	130.3	132.6	133.4	133.4	133.5	135.7	1.6	2.3
Elementary and secondary	129.8	130.1	130.2	130.5	132.6	133.1	133.1	133.3	135.5	1.7	2.2
Colleges and universities	128.0	128.7	129.4	129.9	132.5	134.0	134.3	134.1	136.3	1.6	2.9
Public administration[3]	127.4	128.3	129.2	129.6	130.7	131.8	133.0	133.0	134.1	.8	2.6

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

22. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
Civilian workers[1]	123.2	123.9	125.1	126.1	127.2	128.0	129.2	130.1	131.6	1.2	3.5
Workers, by occupational group:											
White-collar workers	124.3	125.1	126.3	127.3	128.6	129.3	130.6	131.5	133.0	1.1	3.4
Professional specialty and technical	126.1	126.9	128.0	128.8	130.2	130.7	131.4	132.3	134.0	1.3	2.9
Executive, administrative, and managerial	123.8	124.7	126.2	127.0	129.0	129.4	131.0	132.0	133.5	1.1	3.5
Administrative support, including clerical	124.3	125.2	126.4	127.1	128.4	129.1	130.4	131.4	132.7	1.0	3.3
Blue-collar workers	121.1	121.7	122.8	123.9	124.5	125.4	126.2	127.5	128.4	.7	3.1
Service occupations	122.8	123.4	124.2	124.9	126.2	127.6	128.6	129.3	131.5	1.7	4.2
Workers, by industry division:											
Goods-producing	122.1	122.9	123.9	125.1	126.1	126.8	127.6	128.9	129.9	.8	3.0
Manufacturing	123.5	124.3	125.4	126.5	127.7	128.4	129.1	130.3	131.3	.8	2.8
Service-producing	123.7	124.3	125.6	126.5	127.7	128.5	129.8	130.6	132.2	1.2	3.5
Services	126.2	126.9	128.0	128.9	130.3	131.1	132.0	132.9	134.8	1.4	3.5
Health services	127.5	128.4	129.3	130.0	130.8	131.4	132.4	133.1	134.3	.9	2.7
Hospitals	126.8	127.8	128.6	129.2	130.0	130.5	131.0	131.5	132.5	.8	1.9
Educational services	127.8	128.5	128.8	129.1	131.6	132.3	132.5	132.6	135.3	2.0	2.8
Public administration[2]	123.2	124.1	124.9	125.3	126.6	127.7	128.9	129.0	130.3	1.0	2.9
Nonmanufacturing	123.1	123.7	125.0	125.9	127.0	127.8	129.1	130.0	131.5	1.2	3.5
Private industry workers	122.4	123.1	124.4	125.6	126.5	127.3	128.6	129.7	131.0	1.0	3.6
Excluding sales occupations	122.6	123.4	124.7	125.7	126.8	127.5	128.6	129.9	131.2	1.0	3.5
Workers, by occupational group:											
White-collar workers	123.6	124.3	125.8	127.0	128.0	128.7	130.2	131.3	132.7	1.1	3.7
Excluding sales occupations	124.3	125.2	126.7	127.6	129.0	129.4	130.8	132.0	133.4	1.1	3.4
Professional specialty and technical occupations	125.3	126.1	127.8	128.8	129.6	129.9	131.0	132.4	133.7	1.0	3.2
Executive, administrative, and managerial occupations	123.4	124.4	125.9	126.8	128.9	129.3	131.0	132.1	133.6	1.1	3.6
Sales occupations	120.5	120.4	122.0	124.4	123.9	125.9	127.8	128.3	129.8	1.2	4.8
Administrative support occupations, including clerical	124.3	125.3	126.5	127.3	128.5	129.2	130.6	131.7	132.9	.9	3.4
Blue-collar workers	120.8	121.4	122.5	123.7	124.3	125.1	126.0	127.3	128.3	.8	3.2
Precision production, craft, and repair occupations	121.0	121.4	122.4	123.7	124.2	125.1	125.8	127.4	128.2	.6	3.2
Machine operators, assemblers, and inspectors	121.4	122.3	123.4	124.5	125.4	126.4	127.2	128.5	129.5	.8	3.3
Transportation and material moving occupations	118.5	118.6	120.0	120.6	121.0	121.1	122.3	123.0	124.1	.9	2.6
Handlers, equipment cleaners, helpers, and laborers	121.5	122.6	124.2	125.1	125.8	127.1	128.4	129.3	130.2	.7	3.5
Service occupations	120.8	121.4	122.2	123.0	124.1	125.7	126.6	127.6	129.9	1.8	4.7
Production and nonsupervisory occupations[3]	121.8	122.4	123.7	124.9	125.6	126.5	127.7	128.8	130.1	1.0	3.6
Workers, by industry division:											
Goods-producing	122.1	122.9	123.9	125.1	126.1	126.8	127.5	128.9	129.9	.8	3.0
Excluding sales occupations	121.6	122.4	123.5	124.6	125.7	126.3	127.0	128.3	129.3	.8	2.9
White-collar occupations	124.4	125.3	126.2	127.3	128.6	129.1	130.0	131.4	132.3	.7	2.9
Excluding sales occupations	123.2	124.2	125.3	126.3	127.7	128.1	128.9	130.0	130.9	.7	2.5
Blue-collar occupations	120.7	121.4	122.4	123.7	124.5	125.3	126.0	127.3	128.4	.9	3.1
Construction	116.8	117.4	118.3	119.6	120.4	120.8	122.0	123.6	124.7	.9	3.6
Manufacturing	123.5	124.3	125.4	126.5	127.7	128.4	129.1	130.3	131.3	.8	2.8
White-collar occupations	125.3	126.1	127.1	128.2	129.6	130.1	130.6	131.9	132.8	.7	2.5
Excluding sales occupations	123.9	124.8	126.0	127.0	128.4	128.9	129.3	130.5	131.3	.6	2.3
Blue-collar occupations	122.2	123.1	124.2	125.4	126.3	127.3	128.0	129.2	130.2	.8	3.1
Durables	123.6	124.3	125.1	126.5	127.7	128.4	129.0	130.1	131.2	.8	2.7
Nondurables	123.3	124.4	125.8	126.5	127.6	128.5	129.3	130.6	131.4	.6	3.0
Service-producing	122.6	123.2	124.7	125.8	126.7	127.5	129.0	130.1	131.5	1.1	3.8
Excluding sales occupations	123.4	124.2	125.6	126.5	127.6	128.3	129.7	130.9	132.3	1.1	3.7
White-collar occupations	123.2	124.0	125.6	126.8	127.8	128.5	130.1	131.2	132.6	1.1	3.8
Excluding sales occupations	124.7	125.6	127.2	128.1	129.5	129.9	131.5	132.7	134.2	1.1	3.6
Blue-collar occupations	121.1	121.4	122.7	123.5	123.8	124.8	126.0	127.2	127.9	.6	3.3
Service occupations	120.7	121.3	122.0	122.8	124.0	125.6	126.5	127.5	129.8	1.8	4.7
Transportation and public utilities	122.9	123.7	124.6	125.0	125.9	127.0	128.2	128.8	130.1	1.0	3.3
Transportation	121.0	121.6	122.9	123.2	123.8	124.7	126.5	126.9	128.5	1.3	3.8
Public utilities	125.2	126.1	126.5	127.1	128.4	129.8	130.1	130.9	132.0	.8	2.8
Communications	125.3	126.2	126.1	126.5	128.2	130.3	129.8	130.6	131.8	.9	2.8
Electric, gas, and sanitary services	125.2	125.9	127.0	127.7	128.5	129.0	130.4	131.2	132.2	.8	2.9
Wholesale and retail trade	121.6	122.3	123.9	124.8	125.8	127.0	128.5	129.7	130.9	.9	4.1
Excluding sales occupations	121.9	123.2	124.4	124.9	126.5	127.7	129.3	131.1	132.2	.8	4.5
Wholesale trade	123.9	125.5	126.1	128.0	128.5	129.6	131.4	132.2	133.0	.6	3.5
Excluding sales occupations	123.7	125.7	126.3	127.6	128.9	129.8	131.8	132.8	133.9	.8	3.9
Retail trade	120.5	120.6	122.8	123.1	124.4	125.8	127.1	128.5	129.9	1.1	4.4
Food stores	118.6	119.1	120.5	121.2	123.1	124.7	124.8	124.7	126.7	1.6	2.9
General merchandise stores	119.0	120.1	121.0	121.7	122.6	124.7	125.0	126.2	126.7	.4	3.3

See footnotes at end of table.

22. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
Finance, insurance, and real estate	118.0	118.4	119.8	121.9	122.2	122.2	124.5	125.3	126.4	0.9	3.4
Excluding sales occupations	121.1	121.3	123.4	124.5	126.0	125.3	127.2	128.1	129.3	.9	2.6
Banking, savings and loan, and other credit agencies	120.4	120.1	122.7	124.2	126.8	123.8	125.9	126.8	128.9	1.7	1.7
Insurance	121.1	122.2	123.6	124.1	125.4	126.0	127.9	128.0	128.7	.5	2.6
Services	125.3	126.0	127.6	128.7	129.7	130.5	131.8	133.0	134.7	1.3	3.9
Business services	123.6	124.3	126.9	127.7	128.5	130.1	131.4	132.4	134.9	1.9	5.0
Health services	127.5	128.4	129.3	130.1	130.8	131.4	132.5	133.2	134.3	.8	2.7
Hospitals	126.6	127.7	128.5	129.1	129.7	130.3	130.7	131.2	132.2	.8	1.9
Educational services	128.6	129.4	130.1	130.4	133.3	133.8	134.5	134.8	137.8	2.2	3.4
Colleges and universities	129.0	130.1	130.6	130.9	133.4	133.8	134.6	135.0	137.8	2.1	3.3
Nonmanufacturing	121.9	122.5	123.9	125.1	125.9	126.8	128.2	129.3	130.7	1.1	3.8
White-collar workers	123.1	123.8	125.4	126.6	127.6	128.3	129.9	131.0	132.4	1.1	3.8
Excluding sales occupations	124.4	125.4	126.9	127.8	129.2	129.6	131.2	132.4	133.8	1.1	3.6
Blue-collar occupations	119.4	119.8	120.9	122.0	122.4	123.1	124.1	125.5	126.4	.7	3.3
Service occupations	120.6	121.2	122.0	122.7	123.9	125.5	126.4	127.4	129.7	1.8	4.7
State and local government workers	126.6	127.3	127.8	128.1	130.1	130.9	131.4	131.5	133.6	1.6	2.7
Workers, by occupational group:											
White-collar workers	126.8	127.4	127.9	128.2	130.3	131.1	131.4	131.5	133.7	1.7	2.6
Professional specialty and technical	127.4	128.0	128.3	128.6	131.1	131.7	131.9	132.0	134.4	1.8	2.5
Executive, administrative, and managerial	126.0	126.9	127.7	128.0	129.3	130.2	131.3	131.7	133.1	1.1	2.9
Administrative support, including clerical	124.4	125.1	125.8	126.1	127.7	129.0	129.2	129.5	131.4	1.5	2.9
Blue-collar workers	124.8	125.7	126.6	127.0	127.9	128.8	129.6	129.8	131.2	1.1	2.6
Workers, by industry division:											
Services	127.6	128.2	128.6	128.9	131.2	131.9	132.1	132.2	134.7	1.9	2.7
Services excluding schools[4]	126.9	127.4	128.2	128.7	130.1	130.5	131.2	131.6	133.3	1.3	2.5
Health services	127.9	128.6	129.3	129.9	131.1	131.4	132.1	132.6	133.9	1.0	2.1
Hospitals	127.6	128.4	129.1	129.7	130.9	131.3	131.9	132.4	133.7	1.0	2.1
Educational services	127.7	128.3	128.5	128.8	131.3	132.0	132.1	132.2	134.8	2.0	2.7
Schools	127.8	128.4	128.7	128.9	131.4	132.2	132.2	132.3	134.9	2.0	2.7
Elementary and secondary	128.7	129.2	129.3	129.5	132.0	132.4	132.4	132.6	135.3	2.0	2.5
Colleges and universities	125.0	125.9	126.8	127.1	129.8	131.2	131.5	131.4	133.6	1.7	2.9
Public administration[2]	123.2	124.1	124.9	125.3	126.6	127.7	128.9	129.0	130.3	1.0	2.9

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
Private industry workers	135.6	135.9	136.6	137.4	138.1	138.6	139.4	140.1	140.8	0.5	2.0
Workers, by occupational group:											
White-collar workers	136.6	136.7	137.7	138.4	139.5	139.7	140.8	141.5	142.0	.4	1.8
Blue-collar workers	134.1	134.7	135.2	136.1	136.2	137.0	137.2	138.0	138.8	.6	1.9
Workers, by industry division:											
Goods-producing	136.2	137.1	137.7	138.6	138.8	139.7	139.9	140.9	141.5	.4	1.9
Service-producing	134.8	134.7	135.5	136.2	137.2	137.4	138.5	139.2	139.8	.4	1.9
Manufacturing	135.5	136.7	137.5	138.5	138.8	139.8	139.9	141.0	141.4	.3	1.9
Nonmanufacturing	135.4	135.3	136.0	136.7	137.5	137.9	138.9	139.5	140.2	.5	2.0

24. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	1995		1996				1997			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1997	
COMPENSATION											
Workers, by bargaining status[1]											
Union	126.8	127.7	128.5	129.7	130.1	130.8	131.0	131.8	133.2	1.1	2.4
Goods-producing	126.7	127.5	127.9	129.0	129.2	129.8	130.0	131.2	132.3	.8	2.4
Service-producing	126.8	127.9	129.0	130.3	131.0	131.7	131.9	132.4	134.0	1.2	2.3
Manufacturing	127.1	128.1	128.8	129.8	129.8	130.6	130.8	131.7	133.0	1.0	2.5
Nonmanufacturing	126.2	127.1	128.0	129.2	129.9	130.4	130.6	131.5	132.9	1.1	2.3
Nonunion	126.0	126.5	127.7	128.7	129.7	130.4	131.8	132.8	133.9	.8	3.2
Goods-producing	126.4	127.2	128.3	129.4	130.4	131.3	132.0	133.2	134.0	.6	2.8
Service-producing	125.6	126.0	127.3	128.3	129.2	129.9	131.5	132.5	133.7	.9	3.5
Manufacturing	127.3	128.3	129.3	130.5	131.7	132.5	133.1	134.4	135.1	.5	2.6
Nonmanufacturing	125.3	125.7	127.0	128.0	128.9	129.6	131.1	132.2	133.4	.9	3.5
Workers, by region[1]											
Northeast	127.4	127.8	128.9	129.7	130.6	131.1	132.2	133.1	134.0	.7	2.6
South	125.2	125.6	127.0	127.8	128.8	129.7	130.8	131.5	132.5	.8	2.9
Midwest (formerly North Central)	127.7	128.3	129.5	130.7	131.3	132.1	133.3	134.7	136.2	1.1	3.7
West	123.9	125.0	125.9	127.3	128.3	128.9	130.3	131.4	132.5	.8	3.3
Workers, by area size[1]											
Metropolitan areas	126.2	126.8	128.0	129.1	130.0	130.6	131.7	132.8	133.9	.8	3.0
Other areas	126.1	126.5	127.2	128.0	128.7	130.2	131.4	132.4	133.8	1.1	4.0
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	121.5	122.2	122.8	124.2	124.8	125.4	126.0	126.9	128.3	1.1	2.8
Goods-producing	120.2	120.6	121.3	122.5	123.2	123.6	124.1	125.4	126.6	1.0	2.8
Service-producing	123.2	124.2	124.8	126.2	126.8	127.6	128.2	128.8	130.4	1.2	2.8
Manufacturing	121.3	122.0	122.9	123.9	124.5	125.2	125.6	126.5	127.8	1.0	2.7
Nonmanufacturing	121.6	122.3	122.8	124.3	124.9	125.5	126.1	127.1	128.6	1.2	3.0
Nonunion	122.6	123.3	124.8	125.9	126.9	127.7	129.1	130.3	131.6	1.0	3.7
Goods-producing	122.9	123.8	124.9	126.1	127.3	128.0	128.9	130.2	131.2	.8	3.1
Service-producing	122.4	123.0	124.6	125.7	126.6	127.5	129.1	130.2	131.6	1.1	3.9
Manufacturing	124.3	125.2	126.3	127.5	128.8	129.6	130.3	131.7	132.6	.7	3.0
Nonmanufacturing	121.9	122.6	124.2	125.2	126.1	127.0	128.5	129.7	131.1	1.1	4.0
Workers, by region[1]											
Northeast	123.1	123.6	124.9	126.0	127.0	127.7	128.8	129.8	130.7	.7	2.9
South	121.8	122.4	124.1	125.1	126.0	127.0	128.5	129.4	130.6	.9	3.7
Midwest (formerly North Central)	123.0	123.6	125.1	126.2	126.9	127.7	129.0	130.4	132.2	1.4	4.2
West	121.4	122.7	123.3	124.8	125.8	126.5	127.7	128.9	130.2	1.0	3.5
Workers, by area size[1]											
Metropolitan areas	122.4	123.2	124.6	125.8	126.7	127.4	128.7	129.9	131.1	.9	3.5
Other areas	122.1	122.4	123.4	124.2	125.0	126.5	127.7	128.8	130.4	1.2	4.3

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Percent of full-time employees participating in employer-provided benefit plans, 1980–91

Item	Medium and large private establishments[1]										Small private establishments[2]	State and local governments[3]	
	1980	1981	1982	1983	1984	1985	1986	1988	1989	1991	1990	1987	1990
Time-off plans													
Participants with:													
Paid lunch time	10	10	9	11	9	10	10	11	10	8	8	[4] 17	11
Average minutes per day	–	–	25	25	26	27	27	29	26	30	37	34	36
Paid rest time	75	75	76	74	73	72	72	72	71	67	48	[4] 58	56
Average minutes per day	–	–	25	25	26	26	26	26	26	26	27	29	29
Paid funeral leave	–	–	–	–	–	88	88	85	84	80	47	56	63
Average days per occurrence	–	–	–	–	–	3.2	3.2	3.2	3.3	3.3	2.9	3.7	3.7
Paid holidays	99	99	99	99	99	98	99	96	97	92	84	81	74
Average days per year	10.1	10.2	10.0	9.8	9.8	10.1	10.0	9.4	9.2	10.2	9.5	10.9	13.6
Paid personal leave	20	23	24	25	23	26	25	24	22	21	11	38	39
Average days per year	–	–	3.8	3.7	3.6	3.7	3.7	3.3	3.1	3.3	2.8	2.7	2.9
Paid vacations	100	99	99	100	99	99	100	98	97	96	88	72	67
Paid sick leave	62	65	67	67	67	67	70	69	68	67	47	97	95
Unpaid maternity leave	–	–	–	–	–	–	–	33	37	37	17	57	51
Unpaid sick leave	–	–	–	–	–	–	–	16	18	26	8	30	33
Insurance plans													
Participants in medical care plans	97	97	97	96	97	96	95	90	92	83	69	93	93
Participants with coverage for:													
Home health care	–	–	–	37	46	56	66	76	75	81	79	76	82
Extended care facilities	58	60	62	58	62	67	70	79	80	80	83	78	79
Mental health care	98	99	99	99	99	99	99	98	97	98	98	98	99
Alcohol abuse treatment	–	–	50	53	61	68	70	80	97	97	97	87	99
Drug abuse treatment	–	–	37	43	52	61	66	74	96	96	94	86	98
Participants with employee contribution required for:													
Self coverage	26	27	27	33	36	36	43	44	47	51	42	35	38
Average monthly contribution	–	–	–	$ 10.13	$ 11.93	$ 12.05	$ 12.80	$ 19.29	$ 25.31	$ 26.60	$25.13	$ 15.74	$25.53
Family coverage	46	49	51	54	58	56	63	64	66	69	67	71	65
Average monthly contribution[5]	–	–	–	$ 32.51	$ 35.93	$ 38.33	$ 41.40	$ 60.07	$ 72.10	$ 96.97	$109.34	$ 71.89	$ 117.59
Participants in life insurance plans	96	96	96	96	96	96	96	92	94	94	64	85	88
Participants with:													
Accidental death and dismemberment insurance	69	72	72	72	74	73	72	76	71	71	78	67	67
Survivor income benefits	–	–	–	–	–	13	10	8	7	6	1	1	1
Retiree protection available	–	64	64	66	64	62	59	49	42	44	19	55	45
Participants in long-term disability insurance plans	40	41	43	45	47	48	48	42	45	40	19	31	27
Participants in sickness and accident insurance plans	54	50	51	49	51	52	49	46	43	45	26	14	21
Retirement plans													
Participants in defined benefit pension plans[6]	84	84	84	82	82	80	76	63	63	59	20	93	90
Participants with:													
Normal retirement prior to age 65	55	56	58	64	63	67	64	59	62	55	54	92	89
Early retirement available	98	98	97	97	97	97	96	98	97	98	95	90	88
Ad hoc pension increases in last 5 years	–	–	–	51	47	41	35	26	22	7	7	33	16
Terminal earnings formula	53	50	52	54	54	57	57	55	64	56	58	100	100
Benefit coordinated with Social Security	45	43	45	55	56	61	62	62	63	54	49	18	8
Participants in defined contribution plans	–	–	–	–	–	[7] 53	[7] 60	45	48	48	31	9	9
Participants in plans with tax-deferred savings arrangements	–	–	–	–	–	26	33	36	41	44	17	28	45
Other benefits													
Employees eligible for:													
Flexible benefits plans	–	–	–	–	–	–	2	5	9	10	1	5	5
Reimbursement accounts	–	–	–	–	–	–	5	12	23	36	8	5	31

[1] From 1979 to 1986, data were collected in private sector establishments with a minimum employment varying from 50 to 250 employees, depending upon industry. In addition, coverage in service industries was limited. Beginning in 1988, data were collected in all private sector establishments employing 100 workers or more in all industries.

[2] Includes private sector establishments with fewer than 100 workers.

[3] In 1987, coverage excluded local governments employing fewer than 50 workers. In 1990, coverage included all State and local governments.

[4] Data exclude college teachers.

[5] Data for 1983 refer to the average monthly employee contribution for dependent coverage, excluding the employee. Beginning in 1984, the data refer to the average monthly employee contribution for family coverage, which includes the employee.

[6] Prior to 1985, data on participation in defined benefit pension plans included a small percentage of workers participating in money purchase pension plans. Beginning in 1985, these workers were classified as participating in defined contribution plans.

[7] Includes employees who participated in Payroll-based Employee Stock Ownership Plans. Beginning in 1987, these plans were no longer available.

NOTE: Dash indicates data were not collected in this year.

26. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1996						1997						
	1995	1996	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]	May[P]	June[P]	July[P]
Number of stoppages:															
Beginning in period	31	37	2	0	3	5	2	1	1	0	1	6	6	0	2
In effect during period	34	38	7	5	6	8	7	5	6	4	4	7	12	3	4
Workers involved:															
Beginning in period (in thousands)	192	273	3.6	.0	6.3	15.5	3.3	2.1	4.3	.0	2.7	55.8	16.9	.0	24.6
In effect during period (in thousands)	207	275	24.6	17.9	16.6	22.9	19.5	12.0	16.3	9.9	10.1	60.6	60.5	12.0	35.3
Days idle:															
Number (in thousands)	5,771	4,889	379.4	364.2	194.7	243.9	234.6	226.8	237.8	170.6	144.3	537.7	567.4	231.2	228.5
Percent of estimated working time[1]	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.01	.01

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in "'Total economy' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54–56.

[P] = preliminary.

27. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	152.4	156.9	158.3	158.6	158.6	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6
All items (1967 = 100)	456.5	469.9	474.1	475.0	475.0	476.7	478.2	479.3	479.7	479.6	480.2	480.7	481.6	483.0	484.1
Food and beverages	148.9	153.7	155.8	156.2	156.6	156.9	156.9	157.1	157.1	157.1	157.1	157.5	158.1	158.4	158.7
Food	148.4	153.3	155.4	155.9	156.3	156.5	156.5	156.6	156.6	156.6	156.6	157.0	157.6	157.9	158.2
Food at home	148.8	154.3	156.8	157.2	157.7	157.9	157.7	157.7	157.5	157.5	157.3	157.7	158.5	158.6	159.0
Cereals and bakery products	167.5	174.0	175.1	175.4	175.7	176.5	176.7	176.7	176.9	176.9	178.2	178.3	178.6	178.1	178.4
Meats, poultry, fish, and eggs	138.8	144.8	147.9	148.9	150.0	149.6	148.8	147.8	147.7	147.7	147.9	148.2	149.1	149.1	148.9
Dairy products	132.8	142.1	149.3	149.3	148.6	147.8	146.2	146.1	145.7	145.4	144.1	143.3	143.4	143.5	145.7
Fruits and vegetables	177.7	183.9	185.1	186.3	187.2	187.3	187.4	189.3	186.4	186.4	183.7	184.6	187.3	188.1	188.5
Other foods at home	140.8	142.9	143.9	143.4	143.6	144.8	145.4	145.5	146.9	147.1	147.8	148.6	148.7	148.9	149.0
Sugar and sweets	137.5	143.7	145.7	144.2	144.7	146.9	147.2	146.3	147.9	147.9	148.1	149.2	147.8	148.5	148.2
Fats and oils	137.3	140.5	141.6	140.8	140.7	142.3	142.7	142.4	142.4	142.0	141.6	141.4	141.4	142.0	141.7
Nonalcoholic beverages	131.7	128.6	127.6	127.2	126.9	128.3	128.5	129.5	131.9	133.4	134.8	136.3	136.7	136.7	136.6
Other prepared foods	151.1	156.2	158.5	158.3	158.9	159.4	160.6	160.3	161.1	160.4	161.2	161.3	161.8	161.9	162.5
Food away from home	149.0	152.7	154.2	154.7	155.0	155.3	155.6	156.0	156.2	156.3	156.6	157.1	157.4	157.8	158.2
Alcoholic beverages	153.9	158.5	160.1	160.2	160.5	161.1	161.8	162.1	162.3	162.8	162.7	162.9	163.2	163.5	163.7
Housing	148.5	152.8	154.0	153.9	154.0	155.1	155.8	155.9	155.8	155.9	156.9	157.5	157.6	157.7	157.7
Shelter	165.7	171.0	172.5	172.4	172.3	173.6	174.6	175.2	175.3	175.3	176.0	177.0	177.5	177.2	177.8
Renters' costs (12/82 = 100)	174.3	180.2	181.3	179.9	179.1	182.7	185.3	186.8	186.3	185.3	186.6	188.4	189.1	186.8	187.7
Rent, residential	157.8	162.0	163.3	163.7	164.0	164.4	164.8	165.1	165.5	165.9	166.4	166.8	167.3	167.8	168.2
Other renters' costs	204.3	214.7	214.9	207.9	203.8	217.3	226.4	231.7	228.0	222.9	226.7	232.6	233.9	222.8	225.4
Homeowners' costs (12/82 = 100)	171.0	176.5	178.1	178.6	178.8	179.1	179.5	179.8	180.2	180.6	181.1	181.7	182.2	182.8	183.3
Owners' equivalent rent (12/82 = 100)	171.3	176.8	178.4	178.9	179.1	179.5	179.9	180.1	180.5	180.9	181.4	182.1	182.6	183.2	183.6
Household insurance	157.4	161.0	163.4	164.6	162.4	162.6	163.8	163.3	163.8	164.5	165.3	165.7	166.3	166.8	166.9
Maintenance and repairs	135.0	139.0	140.2	141.1	141.5	141.5	142.3	142.4	142.5	143.2	143.3	145.4	145.5	142.6	144.7
Maintenance and repair services	139.8	145.5	147.3	147.6	148.0	148.2	148.4	148.4	148.9	149.9	150.0	153.8	154.4	150.2	153.4
Maintenance and repair commodities	128.5	130.2	130.5	132.3	132.6	132.5	133.9	134.3	133.6	134.1	134.1	133.7	133.1	132.1	132.7
Fuel and other utilities	123.7	127.5	128.7	128.4	129.4	130.8	131.0	129.9	128.9	129.0	131.9	132.1	131.4	132.1	130.8
Fuels	111.5	115.2	116.2	115.7	117.1	119.1	119.2	117.2	115.3	115.3	119.8	119.6	118.6	119.7	117.4
Fuel oil, coal, and bottled gas	88.1	99.2	102.9	105.9	110.3	111.5	109.6	105.5	102.1	100.4	98.0	94.7	93.5	93.7	95.3
Gas (piped) and electricity	119.2	122.1	122.7	121.7	122.8	124.9	125.3	123.4	121.7	121.9	127.5	127.8	126.7	128.1	125.1
Other utilities and public services	152.8	157.2	158.6	158.9	159.1	159.7	160.2	160.5	160.8	161.1	161.7	162.4	162.1	162.3	162.5
Household furnishings and operations	123.0	124.7	125.0	124.8	125.0	124.9	125.2	125.4	125.5	125.8	125.7	125.6	125.2	125.4	125.4
Housefurnishings	111.2	111.3	111.1	110.8	111.0	110.8	111.2	111.1	111.1	111.5	111.2	110.7	110.2	110.2	110.1
Housekeeping supplies	137.1	141.1	141.6	141.8	141.4	142.3	142.5	142.8	143.3	143.0	142.9	144.0	142.9	143.2	143.3
Housekeeping services	143.7	148.0	149.9	149.6	150.1	149.6	149.9	150.6	151.1	151.3	151.8	152.1	152.6	153.2	153.3
Apparel and upkeep	132.0	131.7	133.4	133.4	130.3	129.6	131.9	134.5	136.1	135.3	132.4	130.2	130.0	133.0	134.9
Apparel commodities	128.7	128.2	130.0	129.9	126.5	125.8	128.2	131.0	132.7	131.8	128.6	126.2	125.9	129.2	131.2
Men's and boys' apparel	126.2	127.7	129.2	131.2	127.8	127.0	127.3	129.2	131.4	132.0	129.0	128.0	128.9	131.4	133.1
Women's and girls' apparel	126.9	124.7	127.1	126.7	123.3	121.5	126.1	130.1	131.9	129.9	125.6	121.1	120.3	126.0	128.3
Infants' and toddlers' apparel	127.2	129.7	128.5	126.7	126.9	127.9	127.2	129.7	133.7	133.8	132.9	131.3	127.3	126.7	126.2
Footwear	125.4	126.6	128.0	127.7	125.9	125.0	126.3	127.0	129.3	129.1	126.3	125.9	126.3	127.4	130.6
Other apparel commodities	152.4	150.6	152.0	149.0	141.6	145.6	146.9	149.5	148.1	146.0	146.4	146.9	145.8	145.3	145.5
Apparel services	157.3	159.8	160.6	160.9	161.5	161.7	162.2	162.4	162.6	162.9	163.2	163.5	163.6	163.7	163.7
Transportation	139.1	143.0	143.9	144.8	145.2	145.0	144.8	144.9	144.8	144.4	144.0	143.7	143.8	144.3	144.5
Private transportation	136.3	140.0	140.5	141.5	141.7	141.8	141.9	141.5	141.3	141.0	140.7	140.1	140.8	141.0	140.9
New vehicles	141.0	143.7	143.8	144.8	145.4	145.4	145.4	145.4	145.2	144.6	144.2	143.7	143.0	142.7	143.3
New cars	139.0	141.4	141.5	142.3	143.0	143.0	142.9	142.9	142.6	142.1	141.7	141.1	140.4	140.0	140.6
Used cars	156.5	157.0	157.0	156.5	155.6	154.7	154.4	154.4	154.3	153.9	151.8	149.9	148.5	148.2	147.9
Motor fuel	100.0	106.3	105.9	107.8	108.6	108.6	108.1	106.4	106.0	105.7	105.9	103.9	107.6	109.3	106.7
Gasoline	99.8	105.9	105.2	107.1	107.9	107.9	107.4	105.8	105.4	105.2	105.4	103.5	107.4	109.2	106.5
Maintenance and repair	154.0	158.4	160.5	160.5	160.6	161.1	161.2	161.5	161.9	162.2	162.6	162.9	163.3	163.5	163.9
Other private transportation	170.6	173.9	175.4	176.2	176.0	176.2	177.1	177.4	177.3	177.0	176.7	177.5	177.4	176.9	178.4
Other private transportation commodities	104.8	105.1	105.0	105.1	105.2	105.2	105.4	105.1	104.7	104.7	104.7	105.3	104.8	104.6	104.3
Other private transportation services	186.0	190.1	192.0	193.0	192.7	193.0	194.1	194.5	194.5	194.2	193.8	194.5	194.5	194.0	196.0
Public transportation	175.9	181.9	187.2	187.3	189.9	185.8	182.4	188.1	189.8	188.1	186.6	189.4	183.4	186.0	190.9
Medical care	220.5	228.2	230.1	230.5	230.6	231.8	232.7	233.4	233.8	234.2	234.4	234.8	235.2	235.4	235.8
Medical care commodities	204.5	210.4	212.4	211.9	212.0	212.8	213.9	214.7	215.2	215.6	216.0	216.0	215.5	215.3	215.6
Medical care services	224.2	232.4	234.2	234.9	235.0	236.3	237.1	237.7	238.1	238.5	238.7	239.2	239.8	240.0	240.5
Professional services	201.0	208.3	210.2	210.9	211.0	212.2	213.2	214.2	214.7	215.2	215.5	215.9	216.3	216.4	216.8
Hospital and related services	257.8	269.5	272.4	273.2	273.7	275.7	276.6	276.7	277.0	277.3	277.4	278.1	279.0	279.4	280.2
Entertainment	153.9	159.1	160.1	160.7	160.8	161.3	161.8	162.1	162.2	162.2	162.7	162.6	163.0	163.0	163.1
Entertainment commodities	138.7	143.0	143.6	144.0	144.1	144.2	144.3	144.5	144.1	143.9	143.9	143.8	144.6	144.7	144.3
Entertainment services	172.0	178.1	179.5	180.3	180.5	181.3	182.1	182.7	183.3	183.5	184.5	184.5	184.3	184.2	184.9
Other goods and services	206.9	215.4	218.8	219.2	218.7	220.0	220.7	221.4	222.7	223.1	223.1	223.5	225.7	228.1	229.4
Tobacco products	225.7	232.8	235.3	236.2	234.3	236.4	237.4	238.2	243.2	243.8	241.3	242.0	243.4	246.5	250.2
Personal care	147.1	150.1	150.9	151.2	150.5	151.6	151.5	151.8	152.7	152.6	152.8	152.6	152.5	152.7	153.3
Toilet goods and personal care appliances	143.1	144.3	144.6	144.7	142.8	143.6	143.3	143.6	144.5	144.1	144.2	143.7	143.5	143.7	144.5
Personal care services	151.5	156.6	157.9	158.6	159.2	160.7	160.7	161.2	162.0	162.3	162.6	162.5	162.7	162.7	163.4
Personal and educational expenses	235.5	247.5	252.5	252.8	252.9	254.0	255.0	255.8	256.0	256.6	257.3	258.0	261.6	264.9	265.6
School books and supplies	214.4	226.9	230.5	230.7	231.1	234.5	235.3	235.4	235.8	235.9	237.2	237.7	240.0	241.5	242.4
Personal and educational services	237.3	249.3	254.3	254.7	254.8	255.8	256.7	257.6	257.7	258.3	259.1	259.8	263.5	266.9	267.5

27. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
All items	152.4	156.9	158.3	158.6	158.6	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6
Commodities	136.4	139.9	141.0	141.5	141.4	141.5	141.8	142.0	142.3	142.1	141.5	141.0	141.4	142.1	142.4
Food and beverages	148.9	153.7	155.8	156.2	156.6	156.9	156.9	157.1	157.1	157.1	157.1	157.5	158.1	158.4	158.7
Commodities less food and beverages	128.9	131.5	132.1	132.6	132.1	132.1	132.6	132.9	133.2	132.9	132.0	131.0	131.3	132.2	132.5
Nondurables less food and beverages	129.5	133.0	134.0	134.7	133.7	133.8	134.6	135.0	135.8	135.4	134.2	132.9	133.8	135.5	135.8
Apparel commodities	128.7	128.2	130.0	129.9	126.5	125.8	128.2	131.0	132.7	131.8	128.6	126.2	125.9	129.2	131.2
Nondurables less food, beverages, and apparel	132.9	138.6	139.2	140.3	140.5	141.0	141.0	140.2	140.6	140.4	140.1	139.3	140.8	141.9	141.3
Durables	128.0	129.4	129.3	129.6	129.9	129.7	129.8	129.9	129.6	129.4	129.0	128.3	127.7	127.6	127.8
Services	168.7	174.1	175.8	175.9	176.1	177.0	177.7	178.2	178.3	178.4	179.3	180.1	180.3	180.6	181.0
Rent of shelter (12/82 = 100)	172.4	178.0	179.4	179.4	179.3	180.6	181.6	182.3	182.4	182.4	183.1	184.1	184.7	184.4	185.0
Household services less rent of shelter (12/82 = 100)	138.3	142.0	143.2	142.9	143.4	144.6	145.0	144.3	143.7	144.0	147.0	147.5	146.9	147.7	146.4
Transporatation services	175.9	180.5	183.2	183.7	184.1	183.5	183.4	184.9	185.4	184.9	184.5	185.6	184.3	184.7	186.9
Medical care services	224.2	232.4	234.2	234.9	235.0	236.3	237.1	237.7	238.1	238.5	238.7	239.2	239.8	240.0	240.5
Other services	193.3	201.4	204.3	204.8	205.0	205.9	206.7	207.3	207.7	208.0	208.8	209.1	210.7	212.2	212.7
Special indexes:															
All items less food	153.1	157.5	158.8	159.0	159.0	159.6	160.2	160.6	160.8	160.7	161.0	161.1	161.3	161.8	162.2
All items less shelter	148.6	152.8	154.2	154.6	154.7	155.0	155.3	155.6	155.8	155.7	155.7	155.6	155.9	156.6	156.9
All items less homeowners' costs (12/82 = 100)	153.5	157.9	159.4	159.6	159.6	160.2	160.8	161.2	161.2	161.1	161.2	161.3	161.6	162.0	162.4
All items less medical care	148.6	152.8	154.2	154.5	154.5	155.0	155.5	155.9	156.0	155.9	156.1	156.3	156.6	157.1	157.4
Commodities less food	129.8	132.6	133.2	133.7	133.3	133.3	133.8	134.1	134.4	134.1	133.3	132.3	132.6	133.5	133.8
Nondurables less food	130.9	134.5	135.5	136.1	135.3	135.4	136.2	136.6	137.4	137.0	135.9	134.7	135.5	137.2	137.4
Nondurables less food and apparel	134.1	139.5	140.3	141.2	141.5	142.0	142.1	141.4	141.7	141.7	141.4	140.8	142.1	143.0	142.5
Nondurables	139.3	143.5	145.1	145.6	145.3	145.5	145.9	146.2	146.6	146.4	145.8	145.4	146.1	147.1	147.4
Services less rent of shelter (12/82 = 100)	176.8	182.5	184.6	184.8	185.2	185.9	186.4	186.7	186.8	186.9	188.1	188.8	188.7	189.5	189.8
Services less medical care	163.5	168.7	170.4	170.4	170.6	171.5	172.2	172.7	172.8	172.8	173.8	174.6	174.8	175.1	175.5
Energy	105.2	110.1	110.5	111.1	112.2	113.3	113.1	111.2	110.0	109.9	112.3	111.4	112.5	113.9	111.5
All items less energy	158.7	163.1	164.7	164.9	164.8	165.3	165.9	166.5	166.8	166.8	166.7	167.0	167.3	167.6	168.3
All items less food and energy	161.2	165.6	167.0	167.2	167.0	167.5	168.3	169.0	169.4	169.3	169.2	169.5	169.6	170.0	170.8
Commodities less food and energy	139.3	141.3	142.0	142.2	141.5	141.5	142.2	143.0	143.5	143.3	142.2	141.5	141.2	142.0	142.7
Energy commodities	98.8	105.7	105.8	107.9	109.1	109.2	108.6	106.6	105.8	105.3	105.2	103.1	106.2	107.7	105.7
Services less energy	173.7	179.4	181.2	181.4	181.5	182.4	183.1	183.8	184.1	184.1	184.6	185.4	185.8	186.0	186.7
Purchasing power of the consumer dollar:															
1982–84 = $1.00	.656	.638	.632	.631	.631	.628	.626	.625	.624	.625	.624	.623	.622	.620	.619
1967 = $1.00	.219	.213	.211	.211	.211	.210	.209	.209	.208	.209	.208	.208	.208	.207	.207
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	149.8	154.1	155.5	155.9	155.9	156.3	156.8	157.0	157.2	157.2	157.4	157.5	157.8	158.3	158.5
All items (1967 = 100)	446.1	459.1	463.2	464.2	464.3	465.7	467.0	467.8	468.3	468.3	468.8	469.0	470.0	471.5	472.3
Food and beverages	148.3	153.2	155.2	155.7	156.1	156.4	156.4	156.5	156.5	156.6	156.6	157.0	157.6	157.8	158.1
Food	147.9	152.8	154.9	155.4	155.8	156.1	156.0	156.1	156.1	156.1	156.1	156.6	157.1	157.4	157.7
Food at home	147.9	153.5	155.9	156.4	156.9	157.1	156.8	156.7	156.6	156.6	156.5	156.9	157.6	157.7	158.0
Cereals and bakery products	167.2	173.6	174.7	175.1	175.4	176.2	176.4	176.4	176.6	176.7	177.9	177.9	178.2	177.7	178.0
Meats, poultry, fish, and eggs	138.5	144.5	147.5	148.6	149.8	149.3	148.4	147.4	147.3	147.4	147.5	148.0	148.8	148.7	148.5
Dairy products	132.5	141.9	148.9	149.2	148.5	147.6	146.0	145.8	145.4	145.1	143.8	143.0	143.0	143.2	145.5
Fruits and vegetables	176.7	183.1	184.1	185.2	186.0	186.1	186.1	188.2	185.2	185.4	183.1	184.0	186.9	187.5	187.7
Other foods at home	140.3	142.6	143.5	143.0	143.2	144.4	145.0	145.1	146.4	146.6	147.2	147.9	148.0	148.2	148.4
Sugar and sweets	137.5	143.6	145.6	144.0	144.5	146.8	147.2	146.2	147.9	147.9	148.1	149.2	147.8	148.4	148.0
Fats and oils	137.1	140.3	141.3	140.5	140.4	141.9	142.3	142.2	142.1	141.7	141.3	141.1	141.2	141.7	141.4
Nonalcoholic beverages	131.0	128.1	127.1	126.7	126.5	127.9	128.0	128.9	131.1	132.4	133.6	134.9	135.2	135.2	135.2
Other prepared foods	150.8	156.0	158.2	158.2	158.8	159.3	160.4	160.1	161.0	160.3	160.9	161.2	161.6	161.8	162.3
Food away from home	148.8	152.6	154.2	154.7	155.0	155.4	155.7	156.0	156.2	156.2	156.6	157.1	157.4	157.8	158.2
Alcoholic beverages	153.3	157.9	159.5	159.6	159.9	160.4	161.1	161.5	161.7	162.2	162.1	162.2	162.5	162.6	162.8
Housing	145.4	149.6	150.7	150.7	151.0	151.8	152.4	152.5	152.4	152.6	153.6	154.1	154.2	154.4	154.4
Shelter	161.2	166.2	167.6	167.7	167.7	168.6	169.4	169.9	170.1	170.3	170.9	171.7	172.3	172.2	172.7
Renters' costs (12/84 = 100)	152.5	157.3	158.3	157.6	157.3	159.4	160.9	161.9	161.8	161.6	162.6	163.7	164.3	163.1	163.6
Rent, residential	157.4	161.6	162.9	163.4	163.7	164.1	164.4	164.7	165.2	165.6	166.0	166.5	167.0	167.5	167.9
Other renters' costs	204.4	214.6	214.6	207.4	203.7	216.3	224.9	229.9	226.9	222.9	227.3	232.9	234.2	223.1	224.6
Homeowners' costs (12/84 = 100)	156.0	160.9	162.4	162.8	163.0	163.3	163.7	163.9	164.3	164.6	165.1	165.7	166.2	166.7	167.1
Owners' equivalent rent (12/84 = 100)	156.2	161.2	162.7	163.1	163.4	163.7	164.0	164.3	164.6	164.9	165.4	166.0	166.5	167.0	167.4
Household insurance (12/84 = 100)	144.6	147.1	148.7	150.0	147.2	147.4	148.5	148.1	148.5	149.1	149.8	150.3	150.9	151.2	151.3
Maintenance and repairs	134.5	137.6	138.5	139.9	140.1	140.0	140.7	140.9	141.0	141.7	141.7	143.6	143.8	141.1	142.6
Maintenance and repair services	142.7	147.6	149.5	149.9	150.1	150.0	150.3	150.3	150.9	151.9	152.0	155.9	156.5	152.2	154.4
Maintenance and repair commodities	123.6	124.9	124.8	127.1	127.1	127.3	128.3	128.7	128.2	128.6	128.6	128.3	128.0	127.2	127.8
Fuel and other utilities	123.2	127.2	128.3	128.1	129.0	130.5	130.7	129.6	128.6	128.7	131.7	131.9	131.2	131.9	130.6
Fuels	110.8	114.7	115.6	115.1	116.5	118.5	118.5	116.5	114.7	114.7	119.2	119.1	118.1	119.3	116.8
Fuel oil, coal, and bottled gas	88.0	99.0	102.6	105.7	110.6	111.6	109.4	105.3	101.7	100.0	97.6	94.5	93.2	93.4	95.0
Gas (piped) and electricity	118.4	121.6	122.2	121.2	122.3	124.5	124.8	122.9	121.2	121.5	127.0	127.3	126.2	127.6	124.6
Other utilities and public services	153.2	157.7	159.2	159.5	159.6	160.3	160.9	161.2	161.5	161.8	162.5	163.2	162.9	163.1	163.3
Household furnishings and operations	121.8	123.2	123.4	123.3	123.5	123.4	123.7	123.9	124.0	124.3	124.2	124.1	123.7	123.9	123.9
Housefurnishings	109.9	109.9	109.7	109.5	109.8	109.5	109.8	109.8	109.7	110.2	110.0	109.5	109.1	109.1	109.0
Housekeeping supplies	137.3	141.5	142.1	142.4	142.0	142.8	143.1	143.5	143.9	143.7	143.4	144.4	143.4	143.7	143.9
Housekeeping services	146.8	150.9	152.5	152.4	152.9	152.6	152.9	153.3	153.7	153.9	154.4	154.7	155.2	156.1	156.2

27. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Apparel and upkeep	130.9	130.9	132.4	132.4	129.3	128.7	131.1	133.8	135.5	134.7	131.8	129.8	129.4	132.1	133.9
Apparel commodities	127.7	127.6	129.2	129.1	125.7	125.1	127.6	130.5	132.3	131.5	128.3	126.1	125.7	128.6	130.5
Men's and boys' apparel	125.9	127.4	129.0	130.9	127.5	127.0	127.2	128.8	131.1	131.7	128.8	128.0	128.8	131.2	132.4
Women's and girls' apparel	125.4	123.6	125.4	125.0	121.7	119.9	124.8	129.2	130.7	129.0	124.8	120.6	119.6	124.6	126.8
Infants' and toddlers' apparel	128.1	130.8	128.9	127.7	128.1	128.5	128.1	130.7	134.9	134.9	133.8	132.0	128.4	128.3	127.7
Footwear	126.2	127.6	129.2	128.9	127.0	126.0	127.2	127.9	130.3	130.1	127.2	126.8	127.3	128.3	131.8
Other apparel commodities	150.6	149.6	151.9	148.7	139.7	144.6	145.7	149.5	149.3	146.8	146.3	146.8	145.7	144.8	145.4
Apparel services	156.8	159.0	159.7	160.0	160.5	160.8	161.3	161.5	161.7	161.9	162.2	162.6	162.7	162.8	162.8
Transportation	138.8	142.8	143.5	144.5	144.8	144.6	144.4	144.2	144.2	143.8	143.4	142.9	143.3	143.6	143.6
Private transportation	136.9	140.7	141.2	142.2	142.4	142.4	142.4	141.9	141.8	141.5	141.1	140.4	141.1	141.4	141.1
New vehicles	141.8	144.7	145.0	146.0	146.5	146.6	146.7	146.6	146.4	145.9	145.4	144.9	144.3	144.0	144.7
New cars	138.7	141.1	141.1	141.9	142.7	142.7	142.5	142.5	142.3	141.8	141.3	140.7	140.0	139.7	140.2
Used cars	157.3	158.2	158.3	157.7	156.8	155.9	155.7	155.7	155.7	155.3	153.3	151.4	149.9	149.7	149.4
Motor fuel	99.9	106.3	106.0	108.1	108.9	108.8	108.2	106.3	105.9	105.7	105.9	104.0	107.7	109.2	106.6
Gasoline	99.7	105.9	105.3	107.4	108.3	108.2	107.5	105.7	105.4	105.2	105.5	103.6	107.6	109.2	106.3
Maintenance and repair	154.8	159.3	161.4	161.4	161.4	162.0	162.1	162.5	162.9	163.2	163.7	164.0	164.2	164.5	164.9
Other private transportation	166.5	169.6	171.2	171.9	171.6	171.9	172.6	172.8	172.8	172.5	172.1	172.8	172.7	172.3	173.8
Other private transportation commodities	104.0	104.2	104.1	104.2	104.3	104.2	104.3	104.1	103.7	103.8	103.8	104.4	104.0	103.8	103.6
Other private transportation services	182.2	186.1	188.2	189.1	188.6	189.0	190.0	190.2	190.3	189.9	189.4	190.2	190.1	189.7	191.6
Public transportation	171.9	179.6	184.3	184.5	186.9	183.6	180.3	185.1	186.8	185.2	184.0	186.2	181.6	183.5	187.8
Medical care	219.8	227.6	229.4	229.9	230.1	231.1	232.1	232.8	233.2	233.6	233.8	234.2	234.6	234.7	235.2
Medical care commodities	202.2	207.8	209.8	209.1	209.4	210.1	211.4	212.1	212.3	212.9	213.4	213.3	212.5	212.5	212.9
Medical care services	223.8	232.1	233.9	234.6	234.7	235.9	236.8	237.4	237.9	238.2	238.4	238.9	239.5	239.7	240.3
Professional services	202.0	209.5	211.4	212.1	212.3	213.3	214.3	215.4	216.0	216.5	216.8	217.2	217.7	217.8	218.1
Hospital and related services	255.2	266.5	269.1	269.9	270.4	271.9	272.8	273.0	273.4	273.6	273.6	274.4	275.2	275.6	276.4
Entertainment	151.8	156.8	157.8	158.3	158.4	158.8	159.2	159.6	159.7	159.7	160.1	160.1	160.6	160.5	160.6
Entertainment commodities	137.9	142.0	142.5	142.8	142.9	142.9	143.1	143.4	143.0	142.8	142.7	142.7	143.5	143.4	143.1
Entertainment services	171.9	178.2	179.7	180.4	180.7	181.4	182.2	182.8	183.6	183.8	185.0	184.8	184.9	184.8	185.3
Other goods and services	204.2	212.2	215.3	215.8	215.2	216.7	217.4	218.0	219.8	220.2	219.9	220.3	222.1	224.6	226.1
Tobacco products	225.9	232.5	234.8	235.8	233.9	236.1	237.0	237.7	242.7	243.4	240.9	241.7	243.0	246.1	249.9
Personal care	147.3	150.1	150.9	151.3	150.4	151.6	151.4	151.6	152.6	152.6	152.7	152.4	152.4	152.6	153.3
Toilet goods and personal care appliances	143.8	145.0	145.4	145.4	143.5	144.4	144.2	144.3	145.4	145.0	145.0	144.6	144.4	144.7	145.4
Personal care services	151.5	156.6	158.0	158.7	159.4	160.8	160.8	161.2	162.1	162.4	162.7	162.6	162.8	163.0	163.5
Personal and educational expenses	231.2	242.9	247.7	248.1	248.3	249.7	250.8	251.6	251.8	252.5	253.1	253.6	256.8	260.2	260.8
School books and supplies	215.5	228.2	232.4	232.6	232.9	236.2	236.9	237.1	237.4	237.5	239.6	240.1	241.9	243.9	244.7
Personal and educational services	232.6	244.4	249.2	249.7	249.8	251.1	252.3	253.0	253.3	254.0	254.5	255.0	258.3	261.8	262.4
All items	149.8	154.1	155.5	155.9	155.9	156.3	156.8	157.0	157.2	157.2	157.4	157.5	157.8	158.3	158.5
Commodities	136.4	139.9	141.0	141.6	141.4	141.5	141.8	142.0	142.2	142.1	141.5	141.0	141.4	142.1	142.3
Food and beverages	148.3	153.2	155.2	155.7	156.1	156.4	156.4	156.5	156.5	156.6	156.6	157.0	157.6	157.8	158.1
Commodities less food and beverages	129.0	131.8	132.3	132.9	132.4	132.4	132.9	133.1	133.4	133.2	132.3	131.3	131.6	132.5	132.7
Nondurables less food and beverages	129.0	132.8	133.8	134.6	133.6	133.7	134.5	134.8	135.6	135.3	134.1	132.9	133.9	135.5	135.7
Apparel commodities	127.7	127.6	129.2	129.1	125.7	125.1	127.6	130.5	132.3	131.5	128.3	126.1	125.7	128.6	130.5
Nondurables less food, beverages, and apparel	132.6	138.3	139.0	140.2	140.4	140.9	140.8	139.9	140.3	140.2	139.9	139.1	140.8	141.9	141.2
Durables	127.9	129.2	129.2	129.5	129.6	129.5	129.5	129.6	129.3	129.2	128.6	128.0	127.4	127.2	127.3
Services	166.0	171.4	173.0	173.2	173.4	174.2	174.9	175.2	175.3	175.5	176.4	177.1	177.4	177.7	178.0
Rent of shelter (12/84 = 100)	155.0	159.9	161.3	161.3	161.4	162.3	163.0	163.5	163.7	163.9	164.5	165.3	165.8	165.8	166.2
Household services less rent of shelter (12/84 = 100)	127.0	130.5	131.5	131.2	131.7	132.9	133.3	132.6	132.0	132.3	135.1	135.5	135.0	135.8	134.5
Transporatation services	173.6	178.3	180.8	181.3	181.5	181.3	181.3	182.3	182.8	182.4	182.0	182.9	182.1	182.3	184.2
Medical care services	223.8	232.1	233.9	234.6	234.7	235.9	236.8	237.4	237.9	238.2	238.4	238.9	239.5	239.7	240.3
Other services	190.1	198.1	200.9	201.5	201.7	202.7	203.5	204.1	204.6	205.0	205.7	205.9	207.4	209.0	209.4
Special indexes:															
All items less food	150.0	154.3	155.5	155.8	155.8	156.3	156.8	157.1	157.3	157.3	157.5	157.5	157.8	158.4	158.6
All items less shelter	146.8	151.0	152.4	152.8	152.8	153.2	153.5	153.7	153.8	153.8	153.8	153.6	153.9	154.6	154.8
All items less homeowners' costs (12/84 = 100)	140.7	144.8	146.1	146.4	146.4	146.8	147.3	147.5	147.6	147.6	147.7	147.6	147.9	148.4	148.6
All items less medical care	146.4	150.7	152.0	152.3	152.4	152.8	153.2	153.5	153.6	153.6	153.8	153.8	154.2	154.7	154.9
Commodities less food	130.0	132.8	133.4	134.0	133.5	133.5	134.0	134.2	134.6	134.4	133.5	132.5	132.9	133.7	133.9
Nondurables less food	130.4	134.3	135.3	136.0	135.2	135.3	136.0	136.4	137.1	136.9	135.8	134.7	135.6	137.1	137.3
Nondurables less food and apparel	133.7	139.3	140.0	141.1	141.3	141.8	141.8	141.1	141.4	141.4	141.1	140.4	141.9	142.9	142.4
Nondurables	139.0	143.3	144.8	145.4	145.2	145.4	145.7	146.0	146.4	146.2	145.7	145.3	146.0	147.0	147.2
Services less rent of shelter (12/84 = 100)	157.6	162.7	164.4	164.7	165.0	165.7	166.2	166.3	166.4	166.5	167.7	168.2	168.2	168.8	169.0
Services less medical care	161.1	166.2	167.8	167.9	168.1	169.0	169.6	169.9	170.0	170.1	171.1	171.8	172.0	172.4	172.7
Energy	104.7	109.8	110.1	110.9	112.0	113.0	112.7	110.7	109.6	109.5	111.8	110.8	112.2	113.5	111.0
All items less energy	156.1	160.4	161.9	162.2	162.1	162.5	163.0	163.5	163.9	163.9	163.8	164.0	164.2	164.6	165.2
All items less food and energy	158.2	162.3	163.7	163.9	163.7	164.1	164.8	165.5	165.9	165.9	165.8	165.9	166.0	166.5	167.1
Commodities less food and energy	138.9	140.9	141.6	141.8	141.0	141.0	141.7	142.5	143.1	142.9	141.8	141.1	140.8	141.5	142.2
Energy commodities	99.1	105.9	106.0	108.2	109.4	109.4	108.6	106.5	105.8	105.5	105.5	103.4	106.7	108.1	105.8
Services less energy	171.3	176.8	178.6	178.9	179.0	179.8	180.4	181.0	181.3	181.4	181.9	182.6	183.0	183.3	183.9
Purchasing power of the consumer dollar:															
1982–84 = $1.00	.668	.649	.643	.642	.641	.640	.638	.637	.636	.636	.635	.635	.634	.632	.631
1967 = $1.00	.224	.218	.216	.215	.215	.215	.214	.214	.214	.214	.213	.213	.213	.212	.212

28. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

Area[1]	Pricing schedule[2]	All Urban Consumers							Urban Wage Earners						
		1996		1997					1996		1997				
		Sept.	Oct.	June	July	Aug.	Sept.	Oct.	Sept.	Oct.	June	July	Aug.	Sept.	Oct.
	M	157.8	158.3	160.3	160.5	160.8	161.2	161.6	155.1	155.5	157.4	157.5	157.8	158.3	158.5
Region and area size[3]															
Northeast urban	M	164.6	165.1	167.0	167.6	167.8	168.4	168.7	162.0	162.4	164.3	164.7	164.9	165.6	165.8
Size A—More than 1,200,000	M	165.4	165.7	167.7	168.2	168.4	169.2	169.5	161.8	162.1	164.0	164.3	164.5	165.4	165.5
Size B—500,000 to 1,200,000	M	162.2	162.4	165.2	165.9	166.2	166.0	166.0	159.8	160.1	162.8	163.5	163.7	163.4	163.5
Size C—50,000 to 500,000	M	162.2	163.8	165.6	166.4	166.8	167.1	167.6	163.7	165.3	167.1	167.5	167.8	168.6	168.9
North Central urban	M	154.0	154.4	156.7	156.6	157.2	157.5	157.7	150.6	151.0	153.1	153.1	153.6	153.9	154.0
Size A—More than 1,200,000	M	154.5	154.8	157.3	157.3	158.0	158.3	158.4	150.4	150.7	152.9	152.9	153.6	153.9	153.9
Size B—360,000 to 1,200,000	M	153.3	154.0	155.7	155.8	156.3	156.2	156.7	149.5	150.2	151.7	151.9	152.3	152.3	152.7
Size C—50,000 to 360,000	M	155.4	156.5	158.7	158.5	158.8	159.6	159.7	152.6	153.7	156.0	155.7	156.1	156.9	156.9
Size D—Nonmetropolitan (less than 50,000)	M	151.0	151.1	152.6	152.6	152.6	153.4	153.2	149.1	149.2	150.8	150.7	150.9	151.5	151.1
South urban	M	154.5	154.9	157.0	157.0	157.1	157.5	157.8	153.1	153.5	155.4	155.3	155.5	155.9	156.1
Size A—More than 1,200,000	M	153.5	153.7	155.8	155.8	155.9	156.4	156.7	151.7	151.9	153.9	153.9	154.0	154.5	154.7
Size B—450,000 to 1,200,000	M	157.3	157.7	160.4	160.5	160.8	160.6	160.9	153.6	153.9	156.1	156.2	156.5	156.6	156.8
Size C—50,000 to 450,000	M	154.4	154.8	156.4	156.0	156.1	156.7	157.2	154.4	154.8	156.2	155.7	155.9	156.4	156.9
Size D—Nonmetropolitan (less than 50,000)	M	153.2	154.3	156.3	156.4	156.4	157.1	156.9	153.9	154.8	156.5	156.6	157.0	157.7	157.3
West urban	M	158.6	159.1	161.0	161.1	161.5	162.1	162.8	155.5	155.9	157.5	157.6	158.0	158.6	159.3
Size A—More than 1,250,000	M	158.7	159.2	161.1	161.3	161.7	162.3	163.1	154.0	154.4	156.0	156.2	156.5	157.2	157.9
Size C—50,000 to 330,000	M	163.0	163.2	166.0	166.1	166.8	167.4	168.3	159.9	160.2	162.7	162.9	163.5	164.1	164.9
Size classes:															
A (12/86 = 100)	M	142.4	142.7	144.6	144.8	145.1	145.6	146.0	141.4	141.7	143.5	143.6	143.9	144.4	144.7
B	M	157.9	158.4	160.7	160.9	161.2	161.2	161.5	155.0	155.4	157.6	157.8	158.0	158.0	158.3
C	M	157.4	158.2	160.2	160.1	160.5	161.0	161.5	156.6	157.4	159.2	159.1	159.4	160.0	160.4
D	M	154.7	155.5	156.6	156.7	156.8	157.4	157.6	154.0	154.7	155.7	155.8	156.0	156.6	156.7
Selected local areas															
Chicago, IL–Northwestern IN	M	158.3	158.8	161.7	161.7	162.5	162.1	162.5	153.2	153.7	156.0	156.0	156.7	156.4	156.9
Los Angeles–Long Beach, Anaheim, CA	M	158.2	158.8	159.4	159.5	159.7	160.5	161.1	152.7	153.2	153.8	153.8	154.0	154.7	155.4
New York, NY–Northeastern NJ	M	168.2	168.2	170.3	170.8	170.8	171.7	172.3	164.4	164.4	166.2	166.6	166.7	167.7	168.1
Philadelphia, PA–NJ	M	164.5	164.9	166.1	166.4	166.8	168.6	167.7	163.7	164.2	165.3	165.5	165.9	167.9	166.8
San Francisco–Oakland, CA	M	156.3	156.9	160.0	160.6	161.2	161.6	162.5	153.8	154.3	157.0	157.5	158.1	158.6	159.5
Baltimore, MD	1	155.4	–	–	156.9	–	156.7	–	154.4	–	–	155.6	–	155.6	–
Boston, MA	1	163.5	–	–	167.1	–	167.8	–	162.1	–	–	165.8	–	166.2	–
Cleveland, OH	1	153.5	–	–	156.3	–	157.3	–	145.8	–	–	148.2	–	149.2	–
Miami, FL	1	154.6	–	–	157.9	–	158.5	–	152.6	–	–	155.5	–	156.1	–
St. Louis, MO–IL	1	151.0	–	–	153.3	–	155.1	–	150.1	–	–	152.5	–	154.0	–
Washington, DC–MD–VA	1	160.8	–	–	162.9	–	163.6	–	158.2	–	–	160.2	–	161.1	–
Dallas–Ft Worth, TX	2	–	150.7	151.4	–	151.2	–	152.8	–	150.7	151.4	–	151.1	–	152.8
Detroit, MI	2	–	153.8	155.0	–	156.9	–	157.9	–	148.8	149.8	–	151.6	–	152.4
Houston, TX	2	–	143.2	144.8	–	145.4	–	147.3	–	142.5	144.1	–	144.9	–	146.3
Pittsburgh, PA	2	–	154.5	157.4	–	157.5	–	157.9	–	148.0	150.8	–	151.0	–	151.3

[1] Area definitions are those established by the Office of Management and Budget in 1983, except for Boston–Lawrence–Salem, MA–NH, Area (excludes Monroe County); and Milwaukee, WI, Area (includes only the Milwaukee MSA). Definitions do not include revisions made since 1983. Excludes farms and the military.

[2] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:

M—Every month.

1—January, March, May, July, September, and November.

2—February, April, June, August, October, and December.

[3] Regions are defined as the four Census regions.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error than the national index. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in escalator clauses.

29. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1988	1989	1990	1991	1992	1993	1994	1995	1996
Consumer Price Index for All Urban Consumers:									
All items:									
Index	118.3	124.0	130.7	136.2	140.3	144.5	148.2	152.4	156.9
Percent change	4.1	4.8	5.4	4.2	3.0	3.0	2.6	2.8	3.0
Food and beverages:									
Index	118.2	124.9	132.1	136.8	138.7	141.6	144.9	148.9	153.7
Percent change	4.1	5.7	5.8	3.6	1.4	2.1	2.3	2.8	3.2
Housing:									
Index	118.5	123.0	128.5	133.6	137.5	141.2	144.8	148.5	152.8
Percent change	3.8	3.8	4.5	4.0	2.9	2.7	2.5	2.6	2.9
Apparel and upkeep:									
Index	115.4	118.6	124.1	128.7	131.9	133.7	133.4	132.0	131.7
Percent change	4.3	2.8	4.6	3.7	2.5	1.4	–.2	–1.0	–0.2
Transportation:									
Index	108.7	114.1	120.5	123.8	126.5	130.4	134.3	139.1	143.0
Percent change	3.1	5.0	5.6	2.7	2.2	3.1	3.0	3.6	2.8
Medical care:									
Index	138.6	149.3	162.8	177.0	190.1	201.4	211.0	220.5	228.2
Percent change	6.5	7.7	9.0	8.7	7.4	5.9	4.8	4.5	3.5
Entertainment:									
Index	120.3	126.5	132.4	138.4	142.3	145.8	150.1	153.9	159.1
Percent change	4.3	5.2	4.7	4.5	2.8	2.5	2.9	2.5	3.4
Other goods and services:									
Index	137.0	147.7	159.0	171.6	183.3	192.9	198.5	206.9	215.4
Percent change	6.6	7.8	7.7	7.9	6.8	5.2	2.9	4.2	4.1
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	117.0	122.6	129.0	134.3	138.2	142.1	145.6	149.8	154.1
Percent change	4.0	4.8	5.2	4.1	2.9	2.8	2.5	2.9	2.9

30. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		1996			1997									
	1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Finished goods	127.9	131.3	132.7	132.6	132.7	132.6	132.2	132.1	131.6	131.6	131.6	131.3	131.7	131.8	132.4
Finished consumer goods	125.6	129.5	131.2	131.1	131.2	131.0	130.6	130.4	129.8	130.0	130.0	129.7	130.2	130.5	130.8
Finished consumer foods	129.0	133.5	136.6	136.1	135.5	134.1	133.8	135.2	134.3	135.2	134.0	134.0	134.8	134.8	135.0
Finished consumer goods excluding foods	124.0	127.6	128.8	128.8	129.2	129.5	129.0	128.2	127.7	127.6	128.1	127.7	128.1	128.5	128.8
Nondurable goods less food	118.8	123.2	124.5	124.5	125.2	125.7	124.9	123.8	123.2	123.5	124.4	124.1	124.6	125.7	124.7
Durable goods	132.7	134.2	135.2	135.2	135.0	134.9	135.0	135.0	134.5	133.6	133.4	132.5	132.6	131.5	134.9
Capital equipment	136.7	138.3	138.9	138.7	138.7	139.0	138.9	138.8	138.6	138.1	138.1	137.9	137.7	137.1	138.7
Intermediate materials, supplies, and components	124.9	125.7	126.0	125.7	126.0	126.3	126.1	125.6	125.3	125.4	125.8	125.5	125.6	126.0	125.5
Materials and components for manufacturing	130.4	128.6	128.3	128.0	128.2	128.4	128.4	128.6	128.4	128.4	128.3	128.3	128.3	128.4	128.2
Materials for food manufacturing	119.5	125.7	129.2	124.8	123.8	122.9	122.9	124.1	123.8	123.9	122.7	122.3	122.8	123.2	122.4
Materials for nondurable manufacturing	135.1	130.5	129.6	129.5	129.8	130.1	129.9	129.4	129.0	129.1	129.0	129.4	129.6	130.2	130.3
Materials for durable manufacturing	135.6	131.4	130.5	130.8	131.4	131.9	132.6	133.4	133.4	133.4	133.7	133.1	133.1	133.1	132.4
Components for manufacturing	126.5	126.8	126.6	126.6	126.7	126.8	126.8	126.7	126.6	126.5	126.4	126.5	126.2	126.0	126.0
Materials and components for construction	142.1	143.5	144.3	144.9	144.7	145.0	145.7	146.2	146.8	147.2	147.0	147.1	147.0	146.7	146.4
Processed fuels and lubricants	84.2	89.9	92.3	91.3	92.7	93.4	92.1	88.7	87.0	87.2	89.8	88.5	89.2	90.9	88.7
Containers	148.8	141.2	137.9	137.5	137.9	137.8	136.9	136.0	135.1	134.6	134.2	133.9	134.0	135.4	136.8
Supplies	132.1	135.9	135.9	135.4	135.5	135.5	135.5	135.8	136.0	136.2	136.0	135.9	135.7	136.1	135.8
Crude materials for further processing	102.7	113.5	111.3	114.8	121.6	126.3	116.1	107.6	107.9	110.4	107.1	107.2	107.8	108.2	111.6
Foodstuffs and feedstuffs	105.8	121.5	119.6	117.7	113.6	112.2	111.0	114.1	116.7	117.4	111.3	112.1	111.7	111.1	109.4
Crude nonfood materials	96.8	104.0	101.8	108.7	122.5	131.0	115.2	99.4	98.1	101.8	100.5	100.0	101.2	102.4	108.9
Special groupings:															
Finished goods, excluding foods	127.5	130.5	131.5	131.5	131.7	132.1	131.7	131.1	130.7	130.5	130.9	130.4	130.7	130.8	131.5
Finished energy goods	78.1	83.1	84.8	84.9	85.7	86.5	85.2	83.0	81.8	82.2	83.6	83.0	84.0	85.2	83.5
Finished goods less energy	136.9	139.6	141.0	140.7	140.6	140.3	140.2	140.7	140.3	140.3	139.9	139.7	139.9	139.7	140.8
Finished consumer goods less energy	136.9	140.1	141.8	141.5	141.4	140.8	140.7	141.4	141.0	141.1	140.6	140.4	140.7	140.6	141.7
Finished goods less food and energy	140.0	142.0	142.7	142.5	142.6	142.8	142.7	142.8	142.7	142.3	142.2	141.9	141.9	141.6	143.1
Finished consumer goods less food and energy	141.9	144.3	145.0	144.9	145.1	145.1	145.1	145.3	145.2	144.9	144.8	144.5	144.5	144.4	145.9
Consumer nondurable goods less food and energy	148.5	151.4	152.0	151.8	152.2	152.4	152.3	152.7	153.0	153.0	153.1	153.2	153.2	153.9	153.8
Intermediate materials less foods and feeds	125.5	125.6	125.8	125.7	126.1	126.4	126.2	125.6	125.2	125.3	125.7	125.5	125.6	126.0	125.7
Intermediate foods and feeds	114.8	128.4	130.7	126.2	125.6	124.6	124.8	127.2	127.5	128.3	126.4	125.2	124.6	126.2	122.6
Intermediate energy goods	84.1	89.7	92.1	91.0	92.4	93.2	91.8	88.5	86.7	87.0	89.5	88.2	88.9	90.6	88.4
Intermediate goods less energy	134.0	133.6	133.5	133.2	133.4	133.5	133.6	133.8	133.8	133.9	133.7	133.7	133.6	133.8	133.6
Intermediate materials less foods and energy	135.2	134.0	133.6	133.7	133.9	134.1	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.3	134.4
Crude energy materials	69.4	84.4	82.7	91.9	109.6	119.4	98.0	77.1	76.4	80.8	79.2	78.7	80.0	82.1	90.9
Crude materials less energy	123.5	130.0	127.6	126.1	123.4	123.5	123.3	125.7	126.7	127.5	123.1	123.5	123.5	122.6	121.2
Crude nonfood materials less energy	173.6	155.8	152.3	151.7	152.5	156.6	158.9	159.6	156.4	157.8	157.4	157.0	157.9	156.1	155.6

31. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average		1996			1997									
		1995	1996	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
–	**Total mining industries**	71.0	84.4	83.0	90.4	104.2	111.3	95.1	78.8	77.6	80.8	79.9	79.5	80.4	82.0	88.7
10	Metal mining	101.4	92.1	86.6	88.4	87.3	89.9	88.5	90.9	87.7	89.7	89.4	86.5	86.5	83.7	84.7
12	Coal mining (12/85 = 100)	91.6	91.4	90.5	91.3	90.7	92.9	91.3	92.8	95.0	91.7	92.6	90.5	91.4	91.6	91.4
13	Oil and gas extraction (12/85 = 100)	66.6	84.8	83.7	93.4	112.1	121.1	99.6	77.3	75.5	80.2	78.9	78.9	80.0	82.3	91.4
14	Mining and quarrying of nonmetallic minerals, except fuels	123.8	127.1	127.3	127.3	127.1	127.6	127.7	127.7	128.1	128.3	128.9	129.1	129.3	129.2	129.4
–	**Total manufacturing industries**	124.2	127.1	128.2	128.0	128.0	128.1	127.9	127.8	127.7	127.6	127.2	127.0	127.3	127.3	127.7
20	Food and kindred products	121.7	127.1	129.8	128.5	128.2	127.4	127.1	128.1	128.3	128.9	128.3	128.0	128.6	128.3	127.6
21	Tobacco manufactures	193.2	199.1	201.1	201.1	201.2	201.4	201.2	203.3	208.4	209.2	209.6	209.4	209.4	218.6	218.7
22	Textile mill products	116.5	118.2	118.6	118.6	118.6	118.6	118.8	118.8	118.2	118.5	118.6	118.4	118.9	118.9	118.9
23	Apparel and other finished products made from fabrics and similar materials	120.6	122.3	123.1	122.9	123.1	122.9	122.9	123.2	122.9	123.3	123.4	123.4	123.4	123.5	122.9
24	Lumber and wood products, except furniture	154.1	153.5	154.6	156.2	155.9	156.4	158.2	159.3	159.9	160.7	159.8	160.1	159.4	158.8	157.0
25	Furniture and fixtures	133.3	136.2	137.1	137.3	137.4	137.5	137.6	137.7	138.0	138.2	138.2	138.3	138.3	138.6	138.4
26	Paper and allied products	146.7	138.6	134.9	134.6	134.7	134.5	133.5	132.5	131.5	131.5	131.7	131.8	132.5	134.2	134.9
27	Printing, publishing, and allied industries	159.0	165.6	166.4	166.7	166.9	168.0	168.1	168.0	168.5	168.2	168.4	168.6	168.8	169.1	170.3
28	Chemicals and allied products	143.4	145.8	146.8	146.3	146.4	146.8	146.8	146.9	147.0	147.0	147.0	147.3	147.0	147.0	147.4
29	Petroleum refining and related products	77.2	87.4	92.0	92.5	92.5	92.9	91.2	87.3	85.8	85.5	83.6	81.5	84.9	86.1	84.7
30	Rubber and miscellaneous plastics products	123.3	123.1	123.1	123.3	123.3	122.9	122.8	122.4	122.8	122.9	122.9	122.9	123.0	122.9	122.9
31	Leather and leather products	134.1	134.7	135.1	135.2	136.0	136.8	137.3	137.2	137.4	136.9	136.2	136.9	137.0	137.5	137.4
32	Stone, clay, glass, and concrete products	124.3	125.8	126.2	126.6	126.5	126.8	126.9	127.1	127.5	127.6	127.4	127.5	127.4	127.3	127.8
33	Primary metal industries	128.2	123.7	122.7	122.6	123.0	123.6	124.0	124.8	125.0	125.0	125.4	125.0	125.1	125.2	124.9
34	Fabricated metal products, except machinery and transportation equipment	124.8	126.2	126.5	126.5	126.6	126.8	127.0	127.1	127.2	127.4	127.5	127.7	127.9	127.9	128.1
35	Machinery, except electrical	119.0	119.2	118.9	118.9	118.7	119.1	119.0	119.1	119.1	118.5	118.3	118.1	118.1	118.1	118.2
36	Electrical and electronic machinery, equipment, and supplies	113.3	113.2	112.7	112.8	112.7	112.5	112.2	112.2	112.0	111.8	111.8	111.7	111.1	111.2	111.0
37	Transportation	132.2	134.2	135.4	135.2	135.1	135.4	135.4	135.3	134.8	133.9	133.8	133.0	132.8	131.7	135.3
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	124.0	125.0	125.1	124.7	125.2	125.5	125.4	125.5	125.7	125.7	125.3	125.8	126.0	126.0	125.6
39	Miscellaneous manufacturing industries (12/85 = 100)	125.9	127.8	128.3	128.3	128.3	128.6	128.7	128.9	129.1	129.1	129.1	129.0	129.3	129.3	129.5
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)	104.5	106.3	106.9	107.1	107.2	108.0	108.5	108.6	108.8	108.8	109.0	109.2	109.3	109.3	109.3
43	U.S. Postal Service (06/89 = 100)	132.2	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3
44	Water transportation (12/92 = 100)	103.0	103.7	104.6	104.5	104.2	104.1	104.2	104.1	104.2	104.3	104.8	105.9	104.8	104.3	103.7
45	Transportation by air (12/92 = 100)	113.7	121.1	122.4	123.5	122.7	128.8	128.9	124.6	125.1	125.1	126.2	126.3	126.1	123.3	124.4
46	Pipelines, except natural gas (12/92 = 100)	110.8	104.6	100.9	100.9	100.9	98.8	98.8	98.8	98.8	98.9	98.9	98.7	98.7	98.7	98.7

32. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1988	1989	1990	1991	1992	1993	1994	1995	1996
Finished goods									
Total	108.0	113.6	119.2	121.7	123.2	124.7	125.5	127.9	131.3
Foods	112.6	118.7	124.4	124.1	123.3	125.7	126.8	129.0	133.6
Energy	59.8	65.7	75.0	78.1	77.8	78.0	77.0	78.1	83.2
Other	117.0	122.1	126.6	131.1	134.2	135.8	137.1	140.0	142.0
Intermediate materials, supplies, and components									
Total	107.1	112.0	114.5	114.4	114.7	116.2	118.5	124.9	125.7
Foods	106.0	112.7	117.9	115.3	113.9	115.6	118.5	119.5	125.3
Energy	70.9	76.1	85.5	85.1	84.3	84.6	83.0	84.1	89.8
Other	115.2	120.2	120.9	121.4	122.0	123.8	127.1	135.2	134.0
Crude materials for further processing									
Total	96.0	103.1	108.9	101.2	100.4	102.4	101.8	102.7	113.8
Foods	106.1	111.2	113.1	105.5	105.1	108.4	106.5	105.8	121.5
Energy	67.7	75.9	85.9	80.4	78.8	76.7	72.1	69.4	85.0
Other	85.9	95.8	107.3	97.5	94.2	94.1	97.0	105.8	105.7

33. U.S. export price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1996			1997									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	105.6	103.2	101.9	100.7	102.3	103.4	103.1	101.2	98.5	97.8	99.7	99.5	98.4
01	Meat and meat preparations	98.9	98.3	97.8	95.4	94.5	96.4	96.7	95.7	95.3	95.7	96.2	95.2	95.1
04	Cereals and cereal preparations	104.6	101.5	100.5	98.7	102.8	104.9	104.5	99.7	92.3	89.9	93.2	95.0	93.5
05	Vegetables, fruit, and nuts, prepared fresh or dry	109.0	106.2	101.0	101.4	101.9	101.2	100.1	100.7	101.6	104.3	103.4	97.7	98.2
2	**Crude materials, inedible, except fuels**	89.5	88.7	88.7	90.0	92.2	93.2	92.6	93.0	93.4	93.6	92.8	91.7	88.9
21	Hides, skins, and furskins, raw	117.5	116.4	113.7	113.4	114.7	115.6	113.8	110.0	100.8	96.0	98.3	100.1	101.6
22	Oilseeds and oleaginous fruits	113.9	115.6	114.9	120.1	126.7	133.1	134.0	136.1	134.6	128.6	120.5	120.2	108.3
24	Cork and wood	96.7	97.1	97.6	97.9	98.3	96.0	94.2	94.2	93.2	92.8	92.9	91.7	89.4
25	Pulp and waste paper	58.9	58.0	55.9	55.9	59.4	58.6	58.9	60.5	65.9	69.1	71.4	68.2	69.3
26	Textile fibers and their waste	85.5	82.6	83.5	83.3	83.2	85.2	83.5	83.3	83.4	84.2	84.4	83.7	83.4
27	Crude fertilizers and crude minerals	97.0	97.2	97.2	97.8	97.6	96.9	96.9	97.3	97.8	97.9	97.9	97.9	97.9
28	Metalliferous ores and metal scrap	86.5	84.0	85.7	86.9	88.8	89.7	89.4	89.6	91.7	95.7	96.3	94.4	90.1
3	**Mineral fuels, lubricants, and related products**	116.4	115.7	116.8	116.5	112.3	111.4	110.7	110.7	110.9	110.9	111.2	111.8	112.3
32	Coal, coke, and briquettes	101.5	101.7	101.8	102.6	102.2	102.2	102.5	102.4	102.0	101.6	101.6	101.9	102.3
33	Petroleum, petroleum products, and related materials	128.1	126.5	128.5	127.0	121.4	119.5	119.9	120.0	119.4	120.9	121.3	121.8	121.3
4	**Animal and vegetable oils, fats, and waxes**	97.3	90.0	93.0	96.1	97.6	96.5	93.4	93.6	94.7	93.3	93.3	94.9	97.9
5	**Chemicals and related products, n.e.s.**	96.4	95.9	96.1	96.2	96.4	96.8	96.6	96.7	96.5	96.4	95.5	95.5	95.5
54	Medicinal and pharmaceutical products	101.7	101.8	101.8	101.4	101.2	100.9	101.6	101.5	101.5	101.1	101.1	101.2	101.5
55	Essential oils; polishing and cleaning preparations	101.7	101.5	101.5	101.4	102.5	102.2	102.2	102.8	102.9	103.1	102.6	103.7	103.3
57	Plastics in primary forms (12/92 = 100)	95.6	93.1	93.8	94.8	95.8	97.8	97.8	97.6	97.1	95.9	94.0	93.6	93.7
58	Plastics in nonprimary forms (12/92 = 100)	97.7	97.3	97.4	99.1	98.4	98.7	98.5	99.3	99.1	99.0	99.0	98.9	98.7
59	Chemical materials and products, n.e.s.	103.0	103.1	103.1	103.0	103.1	103.5	104.0	104.2	103.9	103.9	104.0	103.6	103.4
6	**Manufactured goods classified chiefly by materials**	96.7	96.6	97.0	97.1	97.5	97.5	97.8	97.7	98.2	98.5	98.6	98.7	98.6
62	Rubber manufactures, n.e.s.	102.8	102.9	103.0	102.9	102.6	102.7	103.0	103.1	103.2	103.1	102.2	101.9	102.2
64	Paper, paperboard, and articles of paper, pulp, and paperboard	85.9	85.6	84.9	83.6	83.2	83.1	82.3	82.9	83.5	84.4	85.3	85.0	85.3
66	Nonmetallic mineral manufactures, n.e.s.	103.2	104.2	103.9	104.0	104.1	104.0	104.0	104.1	104.3	104.5	104.6	106.3	106.3
68	Nonferrous metals	87.2	85.2	88.3	89.9	92.4	91.7	92.0	91.7	93.4	92.6	93.4	93.3	92.1
7	**Machinery and transport equipment**	100.5	100.5	100.5	100.6	100.5	100.5	100.6	100.4	100.6	100.5	100.6	100.1	100.1
71	Power generating machinery and equipment	104.1	104.2	104.6	105.1	105.2	105.6	105.9	106.0	106.0	105.9	106.2	106.2	106.2
72	Machinery specialized for particular industries	103.1	102.8	102.9	103.7	103.8	103.7	103.8	104.3	104.2	104.1	104.4	104.5	104.5
74	General industrial machines and parts, n.e.s., and machine parts	103.0	103.3	103.1	103.4	103.8	104.1	104.6	104.7	105.2	105.0	105.3	105.2	105.5
75	Computer equipment and office machines	89.9	89.2	87.9	87.7	86.9	86.7	86.3	85.1	84.7	84.0	84.1	83.7	83.2
76	Telecommunications and sound recording and reproducing apparatus and equipment	100.3	100.4	100.7	100.8	100.2	99.9	99.9	99.6	99.6	99.7	99.7	99.2	99.4
77	Electrical machinery and equipment	97.5	97.4	97.5	97.0	96.9	96.7	96.9	96.8	96.5	96.5	96.7	95.0	94.6
78	Road vehicles	101.2	101.4	101.4	101.6	101.5	101.8	101.9	101.7	101.8	102.0	101.9	101.8	102.0
87	**Professional, scientific, and controlling instruments and apparatus**	101.9	102.2	102.7	103.4	103.7	103.8	103.1	103.3	103.4	103.5	103.5	103.3	103.2

34. U.S. import price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1996			1997									
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
0	**Food and live animals**	97.4	96.5	94.6	94.6	97.2	101.8	99.5	102.1	103.7	100.5	100.9	101.3	100.5
01	Meat and meat preparations	102.6	102.3	98.9	97.7	97.9	103.5	104.7	103.5	101.9	101.9	104.2	103.9	102.7
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	97.0	97.1	98.2	98.4	100.1	99.7	100.4	102.1	103.6	104.4	104.6	104.5	107.4
05	Vegetables, fruit, and nuts, prepared fresh or dry	109.8	106.8	101.8	101.6	104.1	111.1	101.5	101.0	101.7	101.2	103.2	103.4	103.4
07	Coffee, tea, cocoa, spices, and manufactures thereof	77.4	77.2	75.0	77.7	85.8	98.6	98.1	107.8	118.4	99.6	97.5	100.0	92.2
1	**Beverages and tobacco**	104.9	105.0	105.2	105.6	106.7	106.9	107.2	107.0	107.5	107.7	107.7	107.8	107.9
11	Beverages	102.5	102.6	102.9	102.9	103.0	103.3	103.6	103.5	104.0	104.2	104.2	104.3	104.4
2	**Crude materials, inedible, except fuels**	95.4	96.4	96.3	97.0	102.1	99.0	97.6	99.8	97.4	97.3	96.8	96.6	94.7
23	Crude rubber (including synthetic and reclaimed)	83.5	85.5	88.2	87.4	88.1	88.3	84.8	82.1	83.9	77.7	77.2	74.5	72.4
24	Cork and wood	118.8	125.7	120.6	121.4	125.4	126.2	124.9	126.9	122.5	123.3	120.9	121.2	112.9
25	Pulp and waste paper	67.7	67.8	66.2	65.7	65.7	64.9	63.8	64.4	65.8	66.5	67.9	68.2	69.0
28	Metalliferous ores and metal scrap	97.2	95.9	97.5	99.8	102.6	103.0	106.0	105.6	105.8	104.6	104.7	104.3	103.6
29	Crude animal and vegetable materials, n.e.s.	–	–	100.0	105.3	148.2	105.2	94.3	118.1	97.3	102.1	101.8	103.1	113.2
3	**Mineral fuels, lubricants, and related products**	131.8	131.8	135.5	138.9	128.0	113.9	105.3	106.6	104.6	104.4	106.2	106.3	111.8
33	Petroleum, petroleum products, and related materials	132.9	131.6	133.9	134.6	123.8	113.1	104.8	106.4	104.0	103.0	105.0	104.7	110.1
34	Gas, natural and manufactured	123.5	136.5	157.5	184.4	170.7	125.9	113.7	112.0	113.3	119.8	119.7	123.7	131.1
5	**Chemicals and related products, n.e.s.**	99.1	99.1	99.1	98.6	97.9	97.8	96.6	96.5	96.4	96.2	96.4	96.2	95.6
52	Inorganic chemicals	103.4	102.1	103.5	103.2	102.7	101.5	101.1	100.8	99.0	97.9	98.6	99.7	99.8
53	Dying, tanning, and coloring materials	101.3	100.6	100.4	99.4	97.4	96.9	97.1	97.1	97.9	97.7	95.4	94.0	94.2
54	Medicinal and pharmaceutical products	100.1	99.9	99.0	97.8	96.6	96.0	96.0	95.4	96.3	96.3	96.2	95.8	96.0
55	Essential oils; polishing and cleaning preparations	101.3	100.7	100.1	99.4	98.7	98.2	98.8	98.7	97.0	96.9	97.8	96.9	97.3
57	Plastics in primary forms (12/92 = 100)	93.4	95.7	95.0	94.5	92.4	91.6	89.6	90.9	91.6	91.7	91.9	92.6	92.2
58	Plastics in nonprimary forms (12/92 = 100)	87.2	86.0	86.7	85.7	85.7	86.1	86.2	85.8	88.6	88.7	87.4	86.9	86.0
59	Chemical materials and products, n.e.s.	107.6	107.3	105.8	105.5	104.7	104.6	104.2	104.2	103.5	103.2	103.3	103.2	102.7
6	**Manufactured goods classified chiefly by materials**	96.0	95.4	95.5	95.3	95.4	96.0	95.9	96.4	96.8	96.6	96.5	96.8	96.7
62	Rubber manufactures, n.e.s.	99.3	98.6	98.5	98.4	97.9	97.4	97.5	97.4	97.6	96.7	95.8	95.1	95.3
64	Paper, paperboard, and articles of paper, pulp, and paperboard	89.5	87.5	86.2	84.2	83.8	85.0	85.6	87.9	87.5	87.6	88.0	88.8	89.0
66	Nonmetallic mineral manufactures, n.e.s.	102.2	102.7	103.0	103.5	103.6	103.2	102.8	103.2	102.6	103.0	102.5	102.1	102.1
68	Nonferrous metals	85.0	83.8	84.6	86.1	87.7	91.1	90.6	91.8	95.1	94.0	94.6	96.9	95.2
69	Manufactures of metals, n.e.s.	100.9	100.8	101.0	100.3	99.9	99.5	99.0	98.9	99.0	98.8	98.3	98.1	98.5
7	**Machinery and transport equipment**	98.4	98.1	98.1	97.1	96.8	96.5	96.0	95.5	95.7	95.4	95.0	94.7	94.5
72	Machinery specialized for particular industries	101.2	101.0	101.5	101.1	100.6	99.7	99.2	98.9	99.3	99.3	98.6	98.5	98.6
74	General industrial machines and parts, n.e.s., and machine parts	101.2	100.7	100.7	100.6	99.6	98.5	98.1	97.9	98.3	98.2	97.6	97.3	97.5
75	Computer equipment and office machines	89.4	88.7	88.2	86.6	85.6	84.4	83.2	81.9	81.2	80.2	78.9	78.1	77.0
76	Telecommunications and sound recording and reproducing apparatus and equipment	96.3	96.0	95.8	94.7	94.7	94.4	93.7	93.1	93.4	93.3	92.9	92.6	92.2
77	Electrical machinery and equipment	94.2	93.3	92.7	90.3	90.2	90.8	90.1	89.8	90.2	89.7	89.6	89.1	88.7
78	Road vehicles	100.9	100.7	100.8	100.7	100.6	100.8	100.6	100.4	100.8	100.9	101.1	101.2	101.4
85	Footwear	100.8	100.7	100.9	101.4	101.7	101.0	101.0	100.9	101.1	101.2	101.1	100.7	100.9
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	97.6	97.1	96.9	96.5	96.0	95.3	95.6	94.3	94.4	95.1	94.4	93.6	93.4

35. U.S. export price indexes by end-use category

[1995 = 100]

Category	1996			1997									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	99.7	99.3	99.3	99.4	99.6	99.7	99.7	99.4	99.3	99.3	99.3	99.0	98.6
Foods, feeds, and beverages	105.9	103.9	102.7	102.4	104.3	106.1	105.8	104.6	102.3	101.2	101.8	101.8	99.8
Agricultural foods, feeds, and beverages	107.2	104.7	103.4	103.1	105.6	107.6	107.4	106.3	103.8	102.4	102.5	102.2	100.1
Nonagricultural (fish, beverages) food products	95.2	97.5	97.4	96.2	91.4	90.7	89.4	88.0	87.6	89.0	96.2	98.5	98.0
Industrial supplies and materials	95.3	94.8	95.0	95.2	95.3	95.3	95.3	95.2	95.5	95.8	95.4	95.1	94.7
Agricultural industrial supplies and materials	95.7	93.3	93.8	95.9	95.8	95.9	94.1	92.6	91.6	92.2	92.3	93.0	93.0
Fuels and lubricants	114.0	114.2	114.8	114.7	111.4	110.7	110.2	110.0	110.0	110.1	110.4	110.9	111.0
Nonagricultural supplies and materials, excluding fuel and building materials	92.2	91.6	91.8	91.8	92.3	92.5	92.8	92.8	93.3	93.6	93.2	92.8	92.4
Selected building materials	97.1	97.7	97.9	98.2	98.6	97.1	95.5	95.4	94.8	94.7	93.8	92.8	91.2
Capital goods	100.5	100.5	100.5	100.6	100.4	100.4	100.3	100.1	100.2	100.0	100.1	99.5	99.3
Electric and electrical generating equipment	100.6	100.5	100.6	100.6	100.3	100.5	100.7	100.6	101.1	101.2	102.2	101.8	101.9
Nonelectrical machinery	98.9	98.7	98.6	98.5	98.4	98.3	98.2	97.9	97.7	97.5	97.5	96.7	96.5
Automotive vehicles, parts, and engines	101.3	101.5	101.5	101.7	101.7	101.9	102.2	102.1	102.1	102.3	102.3	102.2	102.3
Consumer goods, excluding automotive	101.6	101.6	101.8	101.9	102.0	101.7	101.8	101.9	102.0	102.2	102.2	102.6	102.7
Nondurables, manufactured	101.5	101.4	101.6	101.6	101.6	101.4	101.1	101.2	101.5	101.7	101.7	102.3	102.2
Durables, manufactured	101.3	101.3	101.3	101.6	101.7	101.4	102.0	102.1	102.0	102.0	102.1	101.9	102.2
Agricultural commodities	104.6	102.2	101.3	101.4	103.5	105.1	104.7	103.4	101.3	100.2	100.3	100.2	98.4
Nonagricultural commodities	99.0	99.0	99.1	99.1	99.1	99.0	99.0	99.0	99.1	99.1	99.1	98.8	98.6

36. U.S. import price indexes by end-use category

[1995 = 100]

Category	1996			1997									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
ALL COMMODITIES	101.8	101.6	101.9	101.6	100.7	99.4	98.3	98.3	98.2	98.0	97.9	97.8	97.9
Foods, feeds, and beverages	98.4	97.9	96.8	96.7	98.5	101.4	99.6	100.8	101.9	99.4	99.2	99.6	98.8
Agricultural foods, feeds, and beverages	98.3	97.6	95.7	95.7	97.8	101.8	99.0	100.3	101.3	97.5	97.3	97.9	96.3
Nonagricultural (fish, beverages) food products	98.5	98.6	99.5	99.0	100.1	100.1	100.9	101.8	103.1	104.2	104.1	104.1	105.2
Industrial supplies and materials	109.0	108.8	110.1	111.0	107.7	103.4	100.4	101.0	100.4	100.1	100.8	101.1	102.0
Fuels and lubricants	131.7	131.6	135.4	138.8	128.1	114.3	105.8	106.8	104.9	104.6	106.6	107.0	111.6
Petroleum and petroleum products	133.2	132.1	134.7	135.5	124.5	113.7	105.3	106.6	104.5	103.1	105.5	105.6	109.8
Paper and paper base stocks	83.8	82.4	80.9	79.5	79.0	79.8	80.1	82.0	81.9	82.1	82.7	83.4	83.8
Materials associated with nondurable supplies and materials	97.6	97.6	97.6	97.0	96.8	96.9	96.1	96.3	95.8	95.5	95.6	95.4	94.6
Selected building materials	109.9	112.1	110.3	111.0	114.0	114.7	113.7	114.8	112.3	112.8	111.7	111.6	107.6
Unfinished metals associated with durable goods	92.6	91.8	92.4	92.9	93.6	95.5	95.8	96.2	98.0	97.4	97.3	98.5	97.4
Nonmetals associated with durable goods	97.8	97.8	98.3	97.9	97.3	96.7	96.0	95.8	95.7	95.6	95.1	94.1	94.1
Capital goods	96.7	96.3	96.1	94.4	93.9	93.5	92.6	92.0	92.1	91.7	91.0	90.5	89.8
Electric and electrical generating equipment	99.3	99.0	99.0	98.8	98.4	97.6	97.6	97.3	97.1	96.9	97.1	96.8	96.6
Nonelectrical machinery	95.5	94.8	94.5	92.7	92.1	91.7	90.7	90.0	90.1	89.7	88.9	88.3	87.4
Automotive vehicles, parts, and engines	100.7	100.6	100.8	100.7	100.7	100.8	100.6	100.3	100.8	100.9	101.0	101.1	101.3
Consumer goods, excluding automotive	100.2	100.1	100.1	100.0	100.2	99.6	99.6	99.7	99.5	99.6	99.4	99.2	99.4
Nondurables, manufactured	100.7	100.7	100.5	100.6	100.6	100.5	100.8	101.0	101.0	100.9	100.8	100.8	101.1
Durables, manufactured	99.8	99.6	99.6	99.3	99.0	98.5	98.4	98.0	98.1	98.1	97.8	97.4	97.4
Nonmanufactured consumer goods	99.8	99.4	101.0	101.4	108.2	100.4	98.9	102.8	99.1	99.8	99.8	99.9	101.4

37. U.S. international price indexes for selected categories of services

[1990 = 100, unless otherwise indicated]

Category	1995		1996				1997		
	Sept	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Air freight (inbound) (9/90 = 100)	98.0	98.7	95.9	95.1	95.6	95.0	89.5	89.9	88.5
Air freight (outbound) (9/92 = 100)	100.4	99.7	99.1	99.4	98.9	99.2	99.8	99.2	98.8
Air passenger fares (U.S. carriers)	103.6	96.1	98.3	104.3	107.3	101.6	97.1	112.1	109.2
Air passenger fares (foreign carriers)	102.0	96.9	96.3	103.0	105.5	100.7	98.5	106.1	104.2
Ocean liner freight (inbound)	101.5	101.1	101.5	99.6	98.0	98.4	97.6	96.8	94.9

38. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	1994		1995				1996				1997		
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
Business													
Output per hour of all persons	100.5	100.7	100.2	100.4	100.6	101.1	101.6	102.3	102.0	102.5	102.9	103.5	104.6
Compensation per hour	104.4	105.1	105.8	106.6	107.3	108.1	108.9	110.1	111.0	111.9	113.1	114.0	115.2
Real compensation per hour	98.3	98.3	98.3	98.3	98.4	98.6	98.4	98.8	98.9	98.9	99.4	99.9	100.5
Unit labor costs	103.9	104.3	105.6	106.1	106.7	107.0	107.1	107.7	108.8	109.2	109.9	110.1	110.2
Unit nonlabor payments	107.4	108.3	108.3	108.4	108.8	109.2	110.6	111.1	110.8	111.4	111.8	112.5	113.2
Implicit price deflator	105.1	105.8	106.5	107.0	107.4	107.8	108.4	108.9	109.6	110.0	110.6	111.0	111.3
Nonfarm business													
Output per hour of all persons	100.4	100.8	100.3	100.5	100.8	101.2	101.7	102.2	102.0	102.4	102.8	103.4	104.4
Compensation per hour	104.2	105.0	105.6	106.4	107.1	107.9	108.7	109.8	110.6	111.5	112.8	113.7	114.8
Real compensation per hour	98.1	98.2	98.2	98.1	98.3	98.4	98.3	98.5	98.6	98.5	99.1	99.6	100.1
Unit labor costs	103.8	104.2	105.3	105.8	106.3	106.6	106.9	107.4	108.5	108.9	109.7	110.0	109.9
Unit nonlabor payments	108.1	109.2	109.5	109.6	109.7	109.8	111.1	111.4	111.0	111.6	111.9	112.5	113.5
Implicit price deflator	105.3	106.0	106.8	107.2	107.5	107.8	108.4	108.8	109.4	109.8	110.5	110.8	111.2
Nonfinancial corporations													
Output per hour of all employees	103.1	103.8	103.0	103.5	104.7	105.2	105.6	106.4	107.0	107.6	108.1	108.7	110.5
Compensation per hour	104.0	104.6	105.2	106.0	106.6	107.3	107.8	109.0	109.9	110.7	111.9	112.8	114.1
Real compensation per hour	97.9	97.9	97.8	97.7	97.8	97.8	97.5	97.8	97.9	97.8	98.3	98.8	99.4
Total unit costs	100.5	100.3	101.6	101.8	101.1	101.2	101.4	101.4	101.5	101.5	101.8	102.0	101.5
Unit labor costs	100.9	100.8	102.2	102.4	101.9	102.0	102.1	102.4	102.7	102.9	103.5	103.7	103.2
Unit nonlabor costs	99.5	99.1	99.8	100.1	99.0	99.1	99.2	98.4	98.1	97.4	97.0	97.1	96.7
Unit profits	136.3	142.1	135.2	134.9	145.5	147.3	152.5	154.7	156.0	156.4	157.9	159.1	164.4
Unit nonlabor payments	109.7	111.0	109.6	109.7	111.9	112.4	114.0	114.0	114.1	113.7	113.8	114.3	115.4
Implicit price deflator	103.7	104.1	104.6	104.8	105.1	105.4	106.0	106.2	106.4	106.5	106.9	107.2	107.2
Manufacturing													
Output per hour of all persons	105.2	105.7	106.7	107.6	108.8	109.2	110.3	111.0	112.4	113.5	114.2	115.0	117.6
Compensation per hour	105.9	106.6	107.2	108.2	109.2	110.1	110.8	112.1	112.9	113.5	114.7	115.4	116.4
Real compensation per hour	99.8	99.8	99.6	99.8	100.2	100.4	100.2	100.5	100.6	100.3	100.8	101.1	101.5
Unit labor costs	100.7	100.9	100.5	100.5	100.4	100.8	100.4	101.0	100.4	100.0	100.4	100.4	99.0

39. Annual indexes of multifactor productivity and related measures, selected years

[1987 = 100]

Item	1960	1970	1973	1980	1988	1989	1990	1991	1992	1993	1994
Private business											
Productivity:											
Output per hour of all persons	53.5	74.8	83.0	89.1	100.9	101.0	101.9	102.9	105.9	106.4	107.3
Output per unit of capital services	115.9	115.1	120.1	105.8	101.3	101.3	99.8	97.0	98.1	99.1	100.7
Multifactor productivity	70.5	87.2	95.3	96.0	100.5	100.2	100.1	99.1	100.5	101.0	101.8
Output	37.8	57.4	67.9	79.9	104.3	107.0	107.9	106.5	109.3	112.5	117.4
Inputs:											
Labor input	66.7	74.2	78.7	86.8	104.2	107.2	107.8	106.5	107.5	110.4	114.8
Capital services	32.6	49.9	56.6	75.5	102.9	105.7	108.1	109.8	111.4	113.5	116.6
Combined units of labor and capital input	53.6	65.8	71.3	83.2	103.8	106.7	107.9	107.5	108.7	111.3	115.4
Capital per hour of all persons	46.2	65.0	69.2	84.2	99.6	99.7	102.1	106.1	108.0	107.4	106.6
Private nonfarm business											
Productivity:											
Output per hour of all persons	57.7	77.3	85.6	90.6	100.9	100.7	101.3	102.5	105.1	105.6	106.4
Output per unit of capital services	122.6	120.5	125.2	108.2	101.3	100.8	99.1	96.2	96.9	98.1	99.3
Multifactor productivity	74.9	89.9	98.1	97.7	100.5	99.9	99.4	98.5	99.6	100.2	100.7
Output	37.4	57.4	68.3	80.2	104.5	107.1	107.8	106.4	108.9	112.4	117.1
Inputs:											
Labor input	61.4	72.0	76.9	85.7	104.4	107.6	108.3	106.8	108.0	111.2	115.6
Capital services	30.5	47.7	54.5	74.2	103.2	106.2	108.8	110.6	112.4	114.7	118.0
Combined units of labor and capital input	49.9	63.9	69.6	82.1	104.0	107.2	108.5	107.9	109.3	112.2	116.3
Capital per hour of all persons	47.0	64.1	68.3	83.8	99.6	99.9	102.2	106.6	108.5	107.7	107.1
Manufacturing											
Productivity:											
Output per hour of all persons	45.9	61.3	69.4	79.1	101.1	102.8	104.7	107.2	111.1	113.4	–
Output per unit of capital services	122.7	116.6	126.9	102.5	101.6	100.6	97.0	93.0	93.5	94.5	–
Multifactor productivity	67.6	80.1	87.8	86.4	100.6	100.3	99.8	99.7	102.4	103.5	–
Output	40.8	61.6	74.0	82.1	104.2	106.4	105.9	104.1	107.2	111.0	–
Inputs:											
Hours of all persons	88.9	100.6	106.6	103.8	103.1	103.5	101.2	97.1	96.5	97.8	–
Capital services	33.2	52.8	58.3	80.1	102.6	105.8	109.2	111.9	114.6	117.4	–

– Data not available.

NOTE: Productivity and output in this table have not been revised for consistency with the December 1991 comprehensive revisions to the National Income and Product Accounts.

40. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1973	1986	1988	1989	1990	1991	1993	1994	1995	1996
Business												
Output per hour of all persons	51.4	70.5	78.4	94.0	94.6	95.4	96.1	96.7	100.2	100.6	100.5	102.0
Compensation per hour	13.6	23.6	29.0	76.8	83.5	85.8	90.7	95.1	102.6	104.3	106.9	110.4
Real compensation per hour	64.7	85.4	91.6	98.3	99.0	97.1	97.4	97.9	99.6	98.7	98.4	98.7
Unit labor costs	26.6	33.5	37.0	81.7	88.2	89.9	94.4	98.3	102.4	103.7	106.3	108.2
Unit nonlabor payments	24.6	30.6	36.6	81.7	84.1	91.3	93.5	96.6	102.7	106.8	108.7	111.0
Implicit price deflator	25.8	32.4	36.8	81.7	86.8	90.4	94.1	97.7	102.5	104.8	107.2	109.2
Nonfarm business												
Output per hour of all persons	54.8	72.6	80.7	94.7	95.2	95.7	96.2	96.9	100.1	100.5	100.7	102.0
Compensation per hour	14.3	23.8	29.2	77.2	83.6	85.8	90.6	95.1	102.3	104.1	106.7	110.1
Real compensation per hour	67.7	86.1	92.3	98.8	99.1	97.1	97.3	97.9	99.3	98.5	98.3	98.4
Unit labor costs	26.1	32.8	36.2	81.5	87.8	89.7	94.1	98.1	102.2	103.6	106.0	107.9
Unit nonlabor payments	24.0	30.3	34.3	81.3	83.8	90.7	93.2	96.8	103.1	107.4	109.7	111.3
Implicit price deflator	25.3	31.9	35.5	81.4	86.4	90.0	93.8	97.6	102.5	104.9	107.3	109.1
Nonfinancial corporations												
Output per hour of all employees	54.5	69.0	74.4	93.7	96.7	95.4	96.1	97.5	101.2	103.3	104.1	106.6
Compensation per hour	15.6	25.4	30.7	78.7	84.8	86.9	91.4	95.6	102.1	103.9	106.3	109.4
Real compensation per hour	73.9	91.7	97.2	100.8	100.6	98.4	98.1	98.5	99.1	98.4	97.9	97.8
Total unit costs	27.8	36.1	37.9	84.9	88.2	92.5	96.2	99.3	100.5	100.3	101.4	101.4
Unit labor costs	28.6	36.7	41.3	84.0	87.7	91.1	95.2	98.0	100.9	100.6	102.1	102.6
Unit nonlabor costs	25.3	34.3	37.5	87.5	89.7	96.3	99.1	103.0	99.4	99.7	99.5	98.3
Unit profits	47.7	42.0	52.8	88.0	103.8	96.0	94.6	93.9	113.3	134.5	140.8	154.9
Unit nonlabor payments	31.5	36.4	41.7	87.7	93.6	96.2	97.9	100.5	103.2	109.4	110.9	114.0
Implicit price deflator	29.6	36.6	41.5	85.2	89.6	92.8	96.1	98.8	101.7	103.4	105.0	106.3
Manufacturing												
Output per hour of all persons	41.2	55.1	62.6	87.6	91.4	92.6	94.3	96.4	102.2	104.7	108.1	111.7
Compensation per hour	14.9	23.8	28.6	78.6	84.0	86.8	91.0	95.7	102.9	105.6	108.7	112.2
Real compensation per hour	70.6	86.1	90.5	100.6	99.6	98.2	97.6	98.6	99.9	100.0	100.1	100.3
Unit labor costs	36.1	43.2	45.7	89.8	91.9	93.7	96.5	99.3	100.7	100.8	100.6	100.5
Unit nonlabor payments	26.6	30.1	37.0	85.7	91.2	96.8	100.1	99.6	101.1	103.0	107.8	–
Implicit price deflator	30.3	35.2	40.4	87.3	91.5	95.6	98.7	99.5	101.0	102.2	105.0	–

– Data not available.

41. Annual indexes of output per hour for selected industries

[1987 = 100]

Industry	SIC	1973	1984	1985	1986	1988	1989	1990	1991	1992	1993	1994	1995
Iron mining, usable ore	101	50.8	70.0	76.1	79.3	103.1	98.4	88.5	85.0	83.3	86.9	85.0	95.9
Copper mining, recoverable metal	102	42.4	75.9	93.6	109.7	109.1	106.5	102.7	100.5	115.2	118.1	126.0	120.3
Coal mining	12	68.9	83.4	85.1	92.4	110.5	116.4	118.3	122.1	132.7	140.4	147.3	153.9
Crude petroleum and natural gas production	131	173.5	81.9	83.0	90.3	100.9	98.0	96.9	97.9	102.1	105.9	112.4	120.5
Nonmetallic minerals, except fuels	14	86.5	94.0	95.1	95.1	101.0	99.6	101.4	98.5	103.0	100.8	104.4	103.0
Meat packing plants	2011	65.1	93.6	98.3	98.7	100.9	97.9	96.8	100.2	104.5	105.1	101.0	101.7
Sausages and other prepared meats	2013	67.2	99.3	97.8	98.6	107.1	105.9	97.4	95.9	104.6	105.0	101.4	105.3
Poultry dressing and processing	2015	58.0	99.1	100.5	95.6	96.2	105.2	108.6	115.4	119.6	119.8	119.4	122.5
Cheese, natural and processed	2022	72.1	85.1	88.2	93.5	99.8	102.6	108.2	114.6	121.8	115.5	117.5	120.5
Fluid milk	2026	54.6	88.9	92.0	96.0	102.3	103.7	103.3	104.3	104.0	107.1	112.9	115.8
Canned fruits and vegetables	2033	70.1	87.4	92.8	99.1	98.7	92.9	93.8	100.1	101.5	106.6	101.5	109.3
Frozen fruits and vegetables	2037	77.9	99.7	95.2	103.3	94.0	98.0	90.0	94.6	96.4	102.8	109.3	111.1
Flour and other grain mill products	2041	68.5	91.7	95.8	95.9	102.5	102.5	107.9	108.3	111.9	122.2	126.8	117.6
Cereal breakfast foods	2043	65.6	92.8	97.1	98.6	98.6	95.5	100.2	102.3	99.1	95.5	106.6	118.4
Rice milling	2044	59.3	63.8	68.6	72.7	83.1	97.5	104.9	99.3	101.4	129.5	109.2	102.6
Wet corn milling	2046	24.1	74.9	74.6	97.3	96.1	103.6	103.8	100.4	101.8	112.0	110.0	122.5
Prepared feeds for animals and fowls	2047,48	51.6	89.2	96.9	95.2	101.5	103.7	107.0	108.0	108.1	110.7	108.5	115.6
Bakery products	205	82.3	93.4	95.6	100.1	93.4	91.0	93.2	89.2	89.4	90.3	91.1	92.2
Raw and refined cane sugar	2061,62	78.5	89.1	96.6	96.9	99.7	101.8	107.7	110.3	111.7	120.2	115.0	121.8
Beet sugar	2063	75.9	79.7	73.4	80.8	97.6	92.1	97.6	102.3	110.8	109.8	124.2	135.9
Malt beverages	2082	43.3	77.7	73.7	85.0	99.1	105.2	110.6	109.6	113.4	112.6	117.5	118.0
Bottled and canned soft drinks	2086	49.2	81.6	85.2	91.4	109.8	119.4	126.7	135.1	144.2	144.7	150.4	160.0
Fresh or frozen prepared fish	2092	93.3	89.4	87.8	91.2	100.0	94.6	88.9	87.4	95.6	100.1	93.2	88.1
Cigarettes, chewing and smoking tobacco	211,3	79.4	91.3	93.6	95.4	104.8	106.7	109.9	111.6	113.4	101.6	130.1	149.2
Cotton and synthetic broadwoven fabrics	221,2	58.1	91.1	94.8	101.1	100.0	103.9	108.1	113.8	118.4	125.8	134.1	142.8
Hosiery	2251,52	63.2	102.4	100.9	102.5	108.1	110.9	109.2	115.7	122.2	117.4	124.8	127.1
Yarn spinning mills	2281	55.9	86.2	89.6	93.2	98.5	103.3	106.0	105.5	114.1	120.0	125.5	133.2
Men's and boys' suits and coats	231	75.6	93.2	106.3	103.5	102.4	101.9	98.7	91.4	102.4	109.0	129.1	121.5
Housefurnishings, except curtains and draperies	2392	87.2	83.6	92.4	93.6	99.8	96.8	101.3	110.9	117.9	118.7	114.1	115.4
Sawmills and planing mills, general	2421	68.3	89.7	93.5	102.3	101.2	100.1	99.9	102.9	108.9	101.5	103.2	110.3
Hardwood dimension and flooring mills	2426	84.0	85.6	95.1	98.8	97.5	96.9	95.7	98.6	105.4	111.2	111.0	117.1
Millwork	2431	104.2	100.4	97.4	102.2	98.2	97.8	97.8	95.7	93.4	92.5	88.5	86.0
Wood kitchen cabinets	2434	80.5	91.6	87.1	85.2	97.7	91.1	93.6	92.3	102.0	101.9	101.3	102.8
Hardwood veneer and plywood	2435	80.2	83.9	84.5	83.2	99.0	98.9	92.2	93.3	104.1	106.1	90.5	84.2
Softwood veneer and plywood	2436	67.7	87.1	88.3	90.4	100.6	102.6	108.3	114.3	109.2	103.4	101.4	101.5
Wood containers	244	–	103.4	99.6	98.7	103.2	108.8	111.6	113.5	109.8	100.5	101.0	107.1
Mobile homes	2451	–	94.4	94.3	94.4	100.6	98.8	101.2	102.5	102.4	103.8	97.6	99.7
Wood household furniture	2511,17	88.5	96.9	95.0	99.6	100.8	101.2	102.5	101.3	106.5	106.2	105.7	109.1
Upholstered household furniture	2512	75.1	96.2	96.3	101.7	98.8	101.2	107.7	115.1	120.0	120.0	130.6	138.7
Metal household furniture	2514	68.7	84.9	89.4	95.3	100.2	100.7	101.4	107.2	109.5	106.8	96.1	95.1
Mattresses and bedsprings	2515	68.0	84.1	79.5	85.5	92.5	106.5	106.2	108.9	103.4	104.4	105.5	110.9
Wood office furniture	2521	82.5	99.3	99.4	96.2	95.4	95.4	97.4	101.3	107.1	104.4	104.0	103.3
Office furniture, except wood	2522	70.6	97.6	96.9	100.6	96.0	98.7	95.6	92.9	93.9	94.3	95.4	98.4
Pulp, paper, and paperboard mills	261,2,3	67.1	89.7	87.6	93.3	103.1	103.2	102.6	102.1	104.7	104.5	112.4	116.2
Corrugated and solid fiber boxes	2635	70.3	96.7	99.6	102.8	99.8	98.1	100.9	100.8	101.9	105.5	110.0	107.6
Folding paperboard boxes	2657	86.4	93.4	90.0	88.5	101.6	105.4	105.3	110.9	116.4	117.9	122.9	126.8
Paper and plastic bags	2673,74	90.7	99.9	99.7	101.8	97.7	93.7	92.2	89.5	93.9	92.0	96.5	91.7
Alkalies and chlorine	2812	38.4	66.6	70.8	97.7	101.6	92.5	92.3	86.2	87.7	84.8	84.1	87.7
Inorganic pigments	2816	72.6	81.4	84.4	88.6	103.3	107.8	104.5	98.9	107.8	107.8	115.0	108.1
Industrial inorganic chemicals, n.e.s.	2819 pt.	90.6	88.4	87.3	88.6	97.5	105.9	109.0	102.3	104.9	110.7	113.2	126.5
Synthetic fibers	2823,24	38.4	79.8	79.3	90.8	102.9	104.1	98.7	97.5	99.3	112.3	119.4	125.7
Soaps and detergents	2841	89.1	90.5	91.5	92.3	102.4	109.4	128.2	126.4	115.3	112.6	111.7	126.0
Cosmetics and other toiletries	2844	88.6	87.3	90.3	96.6	105.2	102.7	101.1	103.9	108.4	108.5	111.6	115.2
Paints and allied products	285	63.2	93.6	96.9	98.0	101.4	103.3	106.3	104.3	102.9	108.8	116.7	116.6
Industrial organic chemicals, n.e.c.	2869	73.1	89.6	87.8	92.3	110.5	110.5	99.0	92.6	91.6	88.5	96.2	93.3
Nitrogenous fertilizers	2873	65.4	101.1	100.7	90.5	101.3	103.3	107.7	108.4	111.8	117.5	111.1	107.6
Phosphatic fertilizers	2874	62.4	88.4	84.2	79.6	92.0	83.3	99.7	107.3	105.0	106.0	122.6	118.1
Fertilizers, mixing only	2875	90.5	97.8	100.8	95.1	104.7	112.4	112.8	114.6	127.1	139.1	118.9	119.9
Agricultural chemicals, n.e.c.	2879	74.3	98.8	92.9	93.2	108.4	108.9	106.2	102.2	108.4	111.0	115.6	124.9
Petroleum refining	291	84.0	78.7	84.7	94.9	105.3	109.6	109.2	106.6	111.3	120.1	123.8	133.0
Tires and inner tubes	301	56.0	88.8	89.3	92.6	102.9	103.8	103.0	102.4	107.8	116.5	124.1	131.4
Rubber and plastics hose and belting	3052	78.4	104.9	100.1	102.1	108.2	97.8	103.3	96.1	104.3	111.3	102.9	102.0
Miscellaneous plastics products, n.e.c.	308	72.8	86.4	88.2	88.9	100.1	101.1	105.3	107.5	114.0	116.2	119.8	120.2
Footwear, except rubber	314	90.7	98.8	100.3	101.9	102.3	100.9	92.8	93.1	93.3	96.4	106.0	101.2
Glass containers	3221	75.2	97.4	93.4	98.5	99.6	101.6	107.5	108.1	111.5	106.0	111.0	109.9
Cement, hydraulic	324	71.3	89.4	91.8	97.1	103.2	110.2	112.4	108.3	115.1	119.9	125.6	123.4
Clay construction products	3251,53,59	78.5	92.7	94.2	95.5	105.2	98.3	102.3	97.4	98.9	102.3	108.0	111.3
Clay refractories	3255	80.1	96.9	94.9	100.8	102.3	98.5	103.6	97.9	98.6	95.0	107.3	96.0
Concrete products	3271,72	92.5	98.3	99.5	104.4	102.1	104.8	103.8	104.9	103.2	109.3	108.6	114.3
Ready-mixed concrete	3273	99.1	92.9	93.6	96.0	100.2	101.0	100.2	96.7	98.2	96.9	93.0	95.8
Steel	331	64.2	81.3	85.8	89.7	113.5	108.5	110.5	108.2	117.7	134.0	144.6	145.4
Gray and ductile iron foundries	3321	91.3	99.1	96.9	99.3	108.0	106.9	107.9	104.6	107.7	113.1	115.5	112.4
Steel foundries	3324,25	105.8	102.4	99.5	104.9	95.5	96.3	96.9	94.8	95.6	101.5	102.2	106.2
Primary copper	3331	32.8	57.6	73.8	88.7	103.8	94.7	84.9	82.5	71.9	86.9	74.0	77.3
Primary aluminum	3334	73.6	100.7	97.6	102.7	102.3	104.8	106.5	110.6	109.7	105.7	99.0	102.2
Copper rolling and drawing	3351	77.5	84.7	86.2	92.3	93.0	89.1	90.7	86.4	83.0	89.2	96.6	96.6

See footnotes at end of table.

41. Continued—Annual indexes of output per hour for selected industries

[1987 = 100]

Industry	SIC	1973	1984	1985	1986	1988	1989	1990	1991	1992	1993	1994	1995
Aluminum rolling and drawing	3353,54,55	79.0	92.3	85.7	95.8	96.3	90.6	91.2	90.3	96.5	93.9	99.6	93.9
Metal cans	3411	59.2	101.1	99.2	95.9	106.9	108.1	117.5	123.8	129.7	134.6	140.7	146.3
Hand and edge tools, n.e.c.	3423	108.6	97.9	98.8	97.1	100.5	101.0	95.0	93.1	93.1	93.3	100.8	98.4
Heating equipment, except electric	3433	78.0	91.6	91.9	96.2	113.7	105.0	114.0	119.4	121.2	121.8	130.2	131.1
Fabricated structural metal	3441	97.1	91.2	99.0	99.0	100.4	97.6	101.2	104.5	103.6	108.1	109.8	110.1
Metal doors, sash, and trim	3442	90.5	101.4	104.8	102.0	104.6	105.8	103.1	103.0	106.7	105.5	103.3	96.8
Fabricated plate work	3443	–	88.3	87.5	86.4	96.2	90.3	94.1	94.3	98.3	98.3	109.3	109.4
Bolts, nuts, rivets, and washers	3452	75.8	85.3	88.8	91.0	97.0	93.8	93.7	96.1	91.9	92.8	95.8	100.5
Automotive stampings	3465	74.9	100.5	94.5	95.7	102.8	101.8	96.1	97.3	113.8	120.8	124.9	128.4
Metal stampings, n.e.c.	3469	96.8	94.3	88.6	93.9	98.0	95.3	90.4	89.5	98.8	104.8	109.3	112.8
Valves and pipe fittings	3491,92,94	93.6	95.0	94.4	93.9	101.4	101.2	102.1	101.7	100.4	104.2	109.7	109.7
Fabricated pipe and fittings	3498	140.8	130.0	120.0	121.4	99.6	102.3	107.0	114.2	109.6	113.3	112.9	113.0
Internal combustion engines, n.e.c.	3519	83.1	90.2	92.0	98.5	106.3	113.2	108.4	103.3	101.2	104.3	119.5	124.9
Farm machinery and equipment	3523	108.6	112.7	101.6	95.7	112.8	124.0	131.8	125.3	119.1	123.7	131.4	143.4
Lawn and garden equipment	3524	70.0	79.3	82.4	93.2	97.5	93.2	94.8	95.8	108.7	114.7	116.6	126.3
Construction machinery	3531	87.9	91.6	92.2	99.1	107.6	110.2	109.6	101.0	100.6	107.0	123.2	132.9
Mining machinery	3532	102.2	90.2	93.7	95.1	102.0	107.0	98.4	90.0	90.1	109.5	99.5	109.3
Oil and gas field machinery	3533	156.9	126.0	115.2	105.9	123.1	116.1	113.9	110.9	125.7	122.1	119.9	117.5
Metal cutting machine tools	3541	101.4	87.2	89.9	92.0	94.8	99.9	99.2	94.8	113.0	111.4	110.0	111.9
Metal forming machine tools	3542	112.5	90.7	93.1	93.7	113.1	107.9	97.7	88.4	102.5	115.0	104.3	116.2
Machine tool accessories	3545	105.9	94.6	92.3	95.0	98.2	102.5	104.1	104.6	96.8	101.5	114.8	122.3
Pumps and pumping equipment	3561,94	84.0	92.0	91.9	92.7	105.7	101.3	103.4	102.5	98.6	105.2	110.6	113.4
Ball and roller bearings	3562	108.0	95.4	91.6	94.1	102.9	99.0	93.1	89.6	97.8	103.8	106.3	107.2
Air and gas compressors	3563	87.6	90.1	92.2	96.0	103.7	105.3	107.8	110.2	112.7	111.5	117.3	115.0
Refrigeration and heating equipment	3585	100.3	100.1	98.1	95.8	104.0	109.0	106.3	104.8	107.6	111.8	115.1	115.0
Carburetors, pistons, rings, and valves	3592	102.9	95.1	98.8	95.7	109.9	119.4	114.1	115.1	126.4	136.4	142.9	143.0
Transformers, except electronic	3612	100.2	95.4	97.0	99.3	102.8	104.3	107.3	110.7	126.5	121.8	143.4	159.9
Switchgear and switchboard apparatus	3613	88.2	92.2	95.1	95.9	109.1	106.5	106.5	103.9	114.6	123.1	123.8	131.7
Motors and generators	3621	89.0	93.3	94.9	96.8	102.8	103.6	100.9	104.4	111.5	127.1	124.4	139.1
Household cooking equipment	3631	61.8	92.0	90.3	104.6	116.1	96.8	99.5	104.9	100.9	103.7	127.4	125.5
Household refrigerators and freezers	3632	70.1	97.5	104.1	101.2	103.3	105.2	107.3	111.8	116.0	116.8	126.7	124.2
Household laundry equipment	3633	72.3	92.8	93.8	97.4	106.1	98.7	104.0	111.0	115.9	144.8	150.5	131.6
Household appliances, n.e.c.	3639	63.7	85.9	86.3	89.1	100.6	96.3	91.8	80.5	91.6	117.6	118.9	116.0
Electric lamp bulbs and tubes	3641	61.3	86.4	94.2	91.5	100.3	92.7	98.0	101.8	112.8	100.9	98.9	95.9
Lighting fixtures and equipment	3645,46,47,48	84.1	91.3	96.7	103.0	98.1	97.3	96.0	94.3	98.9	103.7	110.0	107.5
Household audio and video equipment	3651	22.3	84.7	96.3	106.9	106.2	120.5	124.1	135.7	151.8	163.1	179.3	225.3
Motor vehicles and equipment	371	68.7	91.1	95.3	95.1	103.2	103.3	102.4	96.7	104.3	105.4	107.3	104.4
Aircraft	3721	79.2	84.7	94.2	93.5	105.8	107.5	112.9	131.4	141.7	142.5	131.8	132.5
Instruments to measure electricity	3825	63.7	96.2	95.4	90.4	106.1	105.2	106.2	108.3	119.0	122.4	144.7	163.6
Photographic equipment and supplies	386	58.9	88.2	86.1	94.1	105.6	113.0	107.8	110.2	116.4	126.9	132.7	129.4
Railroad transportation	4011	46.5	78.0	81.5	89.2	108.4	114.6	118.5	127.8	139.6	145.6	–	–
Bus carriers, class 1	411,13,14 pts.	116.8	100.1	96.1	95.6	107.9	104.6	–	–	–	–	–	–
Trucking, except local	4213	69.5	97.3	93.8	96.8	105.2	109.4	–	–	–	–	–	–
U.S. Postal service	43	88.6	98.1	98.4	100.0	99.9	99.7	104.0	103.7	104.5	107.1	106.6	106.5
Air transportation	4512,13,22 pts.	54.3	88.8	92.0	93.8	99.5	95.8	92.9	92.5	96.9	100.2	105.8	108.4
Petroleum pipelines	4612,13	93.2	99.4	99.9	102.0	104.8	103.2	102.5	99.0	100.2	104.4	108.1	117.7
Telephone communications	481	42.7	84.5	88.9	95.0	106.2	111.6	113.3	119.8	127.7	135.2	141.6	144.6
Electric utilities	491,3 pt.	88.4	93.8	93.0	95.3	104.9	107.7	110.1	113.4	115.2	120.6	126.8	135.0
Gas utilities	492,3 pt	145.5	114.1	111.9	102.1	105.5	103.5	94.8	94.0	95.3	107.0	102.2	105.9
Scrap and waste materials	5093	–	89.1	93.4	97.7	95.4	86.0	98.6	98.9	101.7	109.4	107.7	108.9
Hardware stores	525	83.3	96.6	95.6	101.6	108.6	115.2	110.4	102.5	107.2	106.7	114.5	106.4
Department stores	531	60.8	90.4	92.6	97.4	99.2	96.9	94.2	98.2	101.2	105.0	107.1	107.6
Variety stores	533	148.9	141.9	129.2	106.7	101.9	124.5	151.3	154.3	167.7	170.4	160.5	159.3
General merchandise stores	539	–	78.6	80.9	97.5	100.8	109.8	116.4	121.8	136.1	159.9	161.6	165.9
Grocery stores	541	109.1	107.9	105.7	103.8	98.9	95.4	94.6	93.7	93.3	92.7	92.2	91.2
Retail bakeries	546	125.6	96.0	87.6	93.6	89.8	83.3	89.7	94.7	94.0	85.6	85.6	84.6
New and used car dealers	551	85.1	99.5	99.8	101.6	103.5	102.5	106.1	104.2	106.5	107.4	108.3	107.1
Auto and home supply stores	553	71.1	90.4	94.5	94.3	103.2	101.5	102.8	98.9	98.9	98.9	103.0	106.8
Gasoline service stations	554	59.5	87.0	93.5	101.8	103.0	105.1	102.6	104.3	109.7	112.4	115.0	119.2
Men's and boys' clothing stores	561	77.6	93.7	98.3	100.7	106.0	109.3	112.8	117.7	116.4	115.7	120.9	122.6
Women's clothing stores	562	58.9	98.0	99.8	107.0	97.5	99.1	100.8	101.9	110.7	116.2	118.1	122.9
Family clothing stores	565	76.2	106.2	103.1	103.3	102.4	105.5	104.9	106.9	112.3	111.6	114.9	128.4
Shoe stores	566	81.3	90.6	97.6	105.5	102.7	107.2	106.2	105.1	111.5	110.8	120.5	123.8
Furniture and homefurnishings stores	571	83.9	97.9	94.8	101.2	98.9	101.3	102.2	101.6	108.6	108.9	111.0	116.4
Household appliance stores	572	59.8	87.2	94.9	106.5	98.5	103.5	102.8	105.2	113.9	114.6	115.9	119.9
Radio, television, and computer stores	573	45.6	79.1	89.3	94.1	119.3	115.7	120.9	129.6	143.5	157.3	178.4	195.6
Eating and drinking places	58	110.3	98.9	96.2	99.3	102.8	102.2	104.0	103.1	102.4	103.1	101.4	102.2
Drug stores and proprietary stores	591	92.2	106.4	102.5	101.6	101.9	102.5	103.6	104.7	103.6	104.7	103.7	102.8
Liquor stores	592	95.0	93.6	101.9	93.8	98.2	101.1	105.2	105.9	108.4	100.5	98.7	104.4
Miscellaneous shopping goods stores	594	–	92.6	94.1	97.1	98.4	101.7	101.5	102.0	100.6	103.9	108.2	114.0
Catalog and mail-order houses	5961	–	80.6	80.8	87.2	107.3	111.4	102.1	107.2	113.8	121.0	120.0	123.9
Commercial banks	602	81.2	89.6	94.3	96.2	102.9	101.3	104.6	107.4	109.4	119.5	119.5	124.4
Hotels and motels	701	102.4	101.6	101.2	98.9	97.6	95.0	96.0	99.0	107.6	106.8	111.0	113.2
Laundry, cleaning, and garment services	721	110.8	107.5	103.3	100.8	97.2	100.5	101.0	98.7	99.9	99.9	101.9	105.1
Beauty shops	723	85.9	98.5	96.1	96.9	95.1	99.6	96.8	94.8	99.6	96.5	101.1	104.8
Automotive repair shops	753	109.4	91.7	99.4	96.2	105.7	108.1	106.9	98.7	103.3	102.9	110.4	116.4

n.e.s. = not elsewhere specified.
n.e.c. = not elsewhere classified.
– Data not available.

42. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1995	1996				1997		
	1995	1996	IV	I	II	III	IV	I	II	III
United States	5.6	5.4	5.6	5.6	5.4	5.3	5.3	5.3	4.9	4.9
Canada	9.5	9.7	9.4	9.5	9.6	9.7	9.9	9.6	9.4	9.0
Australia	8.5	8.6	8.4	8.5	8.6	8.7	8.6	8.7	8.7	8.6
Japan	3.2	3.4	3.4	3.3	3.5	3.4	3.3	3.3	3.5	–
France	11.5	12.6	11.7	12.2	12.5	12.7	12.8	12.7	12.7	–
Germany	6.5	7.2	6.7	7.0	7.1	7.2	7.5	7.7	7.8	7.8
Italy[1]	12.0	12.1	11.9	12.0	12.5	11.9	12.0	12.3	12.7	11.9
Sweden	9.1	9.9	9.3	9.0	9.4	9.5	10.3	10.6	10.6	9.5
United Kingdom	8.8	8.2	8.6	8.4	8.4	8.1	8.0	7.6	7.3	6.9

[1] Quarterly rates are for the first month of the quarter.

– Data not available.

NOTE: Quarterly figures for France, Germany, and the United Kingdom are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Labor Force Statistics, 10 Countries* (Bureau of Labor Statistics, August 1996).

43. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Civilian labor force										
United States[1]	119,865	121,669	123,869	125,840	126,346	128,105	129,200	131,056	132,304	133,943
Canada	13,631	13,900	14,151	14,329	14,408	14,482	14,663	14,832	14,928	15,145
Australia	7,758	7,974	8,228	8,444	8,490	8,562	8,619	8,776	9,001	9,127
Japan	60,050	60,860	61,920	63,050	64,280	65,040	65,470	65,780	65,990	66,450
France	23,890	23,980	24,170	24,300	24,490	24,570	24,640	24,760	24,860	25,070
Germany	28,390	28,610	28,840	29,410	29,760	30,030	29,950	29,860	29,710	29,590
Italy	22,350	22,660	22,530	22,670	22,940	22,910	22,760	22,640	22,700	22,820
Netherlands	6,500	6,310	6,430	6,640	6,750	6,950	7,090	7,190	7,270	7,320
Sweden	4,437	4,494	4,552	4,597	4,591	4,520	4,443	4,418	4,460	4,459
United Kingdom	27,870	28,270	28,580	28,730	28,610	28,410	28,310	28,280	28,480	28,620
Participation rate[2]										
United States[1]	65.6	65.9	66.5	66.5	66.2	66.4	66.3	66.6	66.6	66.8
Canada	66.7	67.2	67.5	67.3	66.7	65.9	65.5	65.3	64.8	64.9
Australia	63.0	63.3	64.0	64.6	64.1	63.9	63.6	63.9	64.6	64.6
Japan	61.9	61.9	62.2	62.6	63.2	63.4	63.3	63.1	62.9	63.0
France	56.5	56.2	56.1	56.0	56.0	55.8	55.6	55.5	55.3	55.4
Germany	55.0	55.1	55.2	55.3	55.4	55.1	54.2	53.7	53.2	52.8
Italy	47.6	47.4	47.3	47.2	47.7	47.5	48.1	47.5	47.6	47.7
Netherlands	56.3	54.2	54.7	56.1	56.5	57.8	58.5	59.0	59.3	59.4
Sweden	66.4	66.9	67.3	67.4	67.0	65.7	64.5	63.9	64.3	64.3
United Kingdom	62.9	63.5	64.0	64.1	63.7	63.1	62.8	62.5	62.7	62.7
Employed										
United States[1]	112,440	114,968	117,342	118,793	117,718	118,492	120,259	123,060	124,900	126,708
Canada	12,422	12,819	13,086	13,165	12,916	12,842	13,015	13,292	13,506	13,676
Australia	7,129	7,398	7,720	7,859	7,676	7,637	7,680	7,921	8,235	8,344
Japan	58,320	59,310	60,500	61,710	62,920	63,620	63,810	63,860	63,890	64,200
France	21,320	21,520	21,850	22,100	22,140	22,010	21,730	21,710	21,940	21,920
Germany	26,590	26,800	27,200	27,950	28,480	28,660	28,230	27,920	27,770	27,470
Italy	20,590	20,870	20,770	21,080	21,360	21,230	20,430	20,080	19,970	20,050
Netherlands	5,850	5,830	5,980	6,230	6,350	6,560	6,620	6,670	6,760	6,850
Sweden	4,340	4,410	4,480	4,513	4,447	4,265	4,028	3,992	4,056	4,019
United Kingdom	25,010	25,850	26,510	26,740	26,090	25,530	25,340	25,550	26,000	26,280
Employment-population ratio[3]										
United States[1]	61.5	62.3	63.0	62.8	61.7	61.5	61.7	62.5	62.9	63.2
Canada	60.8	62.0	62.4	61.9	59.8	58.4	58.2	58.5	58.6	58.6
Australia	57.9	58.7	60.1	60.1	57.9	57.0	56.6	57.7	59.1	59.1
Japan	60.1	60.4	60.8	61.3	61.8	62.0	61.7	61.3	60.9	60.9
France	50.4	50.4	50.7	50.9	50.6	50.0	49.0	48.7	48.8	48.5
Germany	51.5	51.6	52.0	52.6	53.0	52.6	51.1	50.2	49.7	49.0
Italy	43.8	43.7	43.6	43.9	44.5	44.0	43.1	42.1	41.8	41.9
Netherlands	50.7	50.0	50.9	52.6	53.2	54.5	54.7	54.7	55.2	55.6
Sweden	65.0	65.7	66.2	66.1	64.9	62.0	58.5	57.6	58.4	57.9
United Kingdom	56.4	58.1	59.3	59.6	58.0	56.7	56.2	56.5	57.2	57.6
Unemployed										
United States[1]	7,425	6,701	6,528	7,047	8,628	9,613	8,940	7,996	7,404	7,236
Canada	1,208	1,082	1,065	1,164	1,492	1,640	1,649	1,541	1,422	1,469
Australia	629	576	508	585	814	925	939	856	766	783
Japan	1,730	1,550	1,420	1,340	1,360	1,420	1,660	1,920	2,100	2,250
France	2,570	2,460	2,320	2,200	2,350	2,560	2,910	3,050	2,920	3,150
Germany	1,800	1,810	1,640	1,460	1,280	1,370	1,720	1,940	1,940	2,120
Italy	1,760	1,790	1,760	1,590	1,580	1,680	2,330	2,560	2,720	2,760
Netherlands	650	480	450	410	400	390	470	520	510	470
Sweden	97	84	72	84	144	255	415	426	404	440
United Kingdom	2,860	2,420	2,070	1,990	2,520	2,880	2,970	2,730	2,480	2,340
Unemployment rate										
United States[1]	6.2	5.5	5.3	5.6	6.8	7.5	6.9	6.1	5.6	5.4
Canada	8.9	7.8	7.5	8.1	10.4	11.3	11.2	10.4	9.5	9.7
Australia	8.1	7.2	6.2	6.9	9.6	10.8	10.9	9.7	8.5	8.6
Japan	2.9	2.5	2.3	2.1	2.1	2.2	2.5	2.9	3.2	3.4
France	10.8	10.3	9.6	9.1	9.6	10.4	11.8	12.3	11.8	12.6
Germany	6.3	6.3	5.7	5.0	4.3	4.6	5.7	6.5	6.5	7.2
Italy	7.9	7.9	7.8	7.0	6.9	7.3	10.2	11.3	12.0	12.1
Netherlands	10.0	7.6	7.0	6.2	5.9	5.6	6.6	7.2	7.0	6.4
Sweden	2.2	1.9	1.6	1.8	3.1	5.6	9.3	9.6	9.1	9.9
United Kingdom	10.3	8.6	7.2	6.9	8.8	10.1	10.5	9.7	8.7	8.2

[1] Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

[2] Labor force as a percent of the working-age population.

[3] Employment as a percent of the working-age population.

NOTE: See "Notes on the data" for information on breaks in series for the United States, France, Italy, the Netherlands, and Sweden. Dash indicates data not available.

44. Annual indexes of manufacturing productivity and related measures, 12 countries

[1992 = 100]

Item and country	1960	1970	1973	1980	1986	1987	1988	1989	1990	1991	1993	1994	1995	1996
Output per hour														
United States	–	–	–	71.9	88.2	94.3	97.8	97.0	97.7	98.2	101.6	105.8	109.2	112.7
Canada	40.5	60.4	72.2	78.5	92.6	93.5	93.9	94.3	95.8	96.3	101.7	106.2	107.5	108.6
Japan	14.0	38.0	48.1	63.9	76.9	81.2	84.8	89.5	95.4	99.4	100.5	101.8	109.2	114.1
Belgium	17.8	32.7	42.6	64.5	87.6	88.7	91.7	96.7	96.9	99.1	104.1	110.0	109.3	–
Denmark	29.5	52.1	66.1	89.2	90.0	89.6	92.9	96.1	96.0	97.9	106.8	–	–	–
France	23.0	45.5	53.9	70.5	85.2	86.7	92.7	97.4	99.1	98.7	101.8	110.4	114.5	117.0
Germany	29.2	52.1	61.1	77.3	89.5	88.4	91.6	94.4	99.0	102.0	100.4	108.0	111.1	115.7
Italy	19.6	36.8	43.9	64.0	82.6	85.0	86.6	89.4	92.8	95.3	104.5	107.4	110.7	113.3
Netherlands	19.6	38.6	48.9	70.0	91.2	91.9	93.9	97.3	98.6	99.6	102.1	112.1	115.9	–
Norway	36.7	57.8	67.6	76.7	89.0	93.3	92.1	94.6	96.6	97.5	100.6	101.4	102.5	103.3
Sweden	27.6	52.8	62.1	74.0	88.5	90.1	90.8	93.8	95.0	95.0	106.7	116.1	122.0	124.8
United Kingdom	30.5	43.7	51.9	54.9	74.7	78.8	83.1	87.1	90.1	94.4	105.6	108.7	107.7	107.5
Output														
United States	–	–	–	77.4	91.0	97.9	104.4	104.0	102.5	98.8	103.0	109.8	113.6	116.7
Canada	34.2	61.0	77.6	85.9	99.3	104.1	109.4	110.3	106.2	98.7	104.8	112.8	117.1	118.6
Japan	10.7	38.8	50.0	59.9	74.9	78.4	84.6	90.2	96.3	101.4	96.0	95.4	100.5	105.0
Belgium	30.7	57.5	70.6	78.2	89.0	88.7	93.1	98.9	101.0	100.7	96.9	101.4	104.4	–
Denmark	40.1	66.8	78.1	89.7	101.7	97.6	99.1	100.3	99.3	99.2	101.1	103.0	105.9	105.6
France	32.4	66.9	80.1	92.7	91.2	91.1	96.3	101.6	103.5	101.7	96.2	101.3	105.4	106.2
Germany	41.5	70.9	78.5	85.3	89.7	88.0	90.9	94.0	99.1	102.8	91.5	93.1	93.4	92.9
Italy	21.5	44.8	54.1	78.7	84.8	88.5	94.8	98.6	100.4	99.7	96.6	101.9	107.7	106.8
Netherlands	31.8	59.7	67.9	77.6	88.1	89.3	92.7	96.9	100.1	100.6	98.3	103.3	105.8	–
Norway	56.6	89.1	102.2	103.6	108.1	110.7	105.3	101.3	100.2	98.3	102.7	106.7	109.9	112.9
Sweden	46.5	81.7	88.5	91.8	105.2	107.7	110.2	111.6	110.6	103.6	101.3	115.7	127.0	129.8
United Kingdom	68.4	91.2	100.6	88.1	91.1	95.3	102.0	106.6	106.4	100.6	101.4	105.6	108.0	108.5
Total hours														
United States	92.2	104.5	110.5	107.6	103.1	103.9	106.8	107.2	104.9	100.6	101.4	103.8	104.1	103.5
Canada	84.5	100.9	107.5	109.5	107.2	111.4	116.5	117.0	110.8	102.5	103.0	106.2	108.9	109.1
Japan	76.3	102.3	104.0	93.8	97.3	96.6	99.8	100.8	100.9	102.0	95.6	93.7	92.0	92.0
Belgium	172.1	176.3	165.6	121.4	101.6	100.0	101.5	102.3	104.3	101.6	93.2	92.2	95.6	–
Denmark	135.8	128.3	118.1	100.6	113.1	109.0	106.6	104.3	103.3	101.3	94.7	–	–	–
France	140.6	147.0	148.7	131.5	107.2	105.1	104.0	104.4	104.5	103.0	94.5	91.8	92.0	90.8
Germany	142.4	136.1	128.4	110.3	100.1	99.6	99.2	99.5	100.1	100.8	91.1	86.2	84.0	80.3
Italy	109.6	121.8	123.4	123.0	102.7	104.1	109.5	110.2	108.2	104.6	92.4	94.8	97.2	94.3
Netherlands	162.7	154.5	138.7	111.0	96.6	97.2	98.7	99.6	101.6	101.0	96.3	92.2	91.3	–
Norway	154.0	154.3	151.2	135.0	121.6	118.6	114.3	107.1	103.7	100.8	102.1	105.2	107.2	109.3
Sweden	168.3	154.7	142.5	124.0	118.9	119.5	121.4	119.0	116.4	109.0	94.9	99.6	104.1	104.0
United Kingdom	224.4	208.6	194.0	160.3	121.9	120.9	122.7	122.3	118.0	106.6	96.0	97.2	100.3	100.9
Compensation per hour														
United States	14.9	23.8	28.6	55.8	78.6	80.8	84.0	86.8	91.0	95.7	102.4	105.1	108.8	112.0
Canada	10.5	18.3	22.9	50.2	77.5	79.8	83.3	86.4	91.3	97.1	100.1	102.1	103.9	108.5
Japan	4.3	16.5	26.8	58.6	76.1	77.9	79.2	84.2	90.7	95.9	104.6	106.7	110.0	111.6
Belgium	5.5	14.1	21.6	52.5	77.2	79.0	80.6	84.8	89.6	95.3	105.0	108.4	111.7	–
Denmark	4.6	13.2	20.4	49.4	72.9	79.7	82.5	87.2	92.6	96.2	102.4	–	–	–
France	4.3	10.5	14.9	41.3	76.8	79.7	82.7	87.2	91.8	96.3	103.6	106.2	107.7	110.0
Germany	8.1	20.8	29.1	53.8	73.1	76.6	79.6	83.4	89.4	95.1	106.1	112.1	117.5	123.4
Italy	1.6	4.6	7.0	27.9	62.6	66.1	68.7	75.5	84.0	93.1	107.1	106.6	109.2	117.1
Netherlands	6.4	20.4	31.8	64.8	85.2	87.9	87.6	88.4	90.8	95.2	103.8	107.1	109.9	–
Norway	4.7	11.8	17.0	39.0	69.1	78.5	83.3	87.2	92.3	97.5	101.5	104.4	109.2	114.0
Sweden	4.1	10.8	15.2	37.4	63.1	67.3	71.7	79.4	87.6	95.4	98.0	101.1	107.4	114.3
United Kingdom	3.1	6.5	9.7	33.9	59.7	66.3	70.6	75.2	83.5	93.1	106.6	109.9	110.8	115.0
Unit labor costs: National currency basis														
United States	–	–	–	77.6	89.1	85.7	85.9	89.4	93.1	97.5	100.8	99.4	99.7	99.3
Canada	25.9	30.3	31.8	63.9	83.6	85.3	88.7	91.7	95.2	100.9	98.4	96.1	96.7	99.9
Japan	30.9	43.3	55.7	91.7	99.0	96.0	93.4	94.0	95.0	96.5	104.1	104.9	100.7	97.8
Belgium	31.1	43.1	50.6	81.4	88.1	89.1	87.9	87.8	92.5	96.1	100.9	98.6	102.2	–
Denmark	15.5	25.3	30.8	55.3	81.0	89.0	88.8	90.7	96.5	98.3	95.9	97.9	102.2	104.9
France	18.7	23.0	27.6	58.6	90.2	92.0	89.3	89.5	92.6	97.6	101.8	96.2	94.0	94.0
Germany	28.0	39.9	47.6	69.6	81.6	86.7	86.9	88.3	90.3	93.2	105.6	103.9	105.7	106.6
Italy	8.0	12.6	16.0	43.7	75.8	77.8	79.4	84.4	90.5	97.7	102.5	99.2	98.6	103.3
Netherlands	32.9	52.7	65.0	92.6	93.4	95.7	93.3	90.8	92.1	95.5	101.7	95.5	94.9	–
Norway	12.9	20.4	25.1	50.8	77.7	84.1	90.4	92.2	95.6	100.0	100.9	102.9	106.5	110.3
Sweden	14.9	20.5	24.4	50.6	71.3	74.7	79.0	84.7	92.3	100.4	91.8	87.0	88.0	91.6
United Kingdom	10.3	14.8	18.7	61.7	79.9	84.1	84.9	86.3	92.6	98.6	101.0	101.1	102.9	107.0
Unit labor costs: U.S. dollar basis														
United States	–	–	–	77.6	89.1	85.7	85.9	89.4	93.1	97.5	100.8	99.4	99.7	99.3
Canada	32.3	35.1	38.4	66.1	72.7	77.8	87.1	93.6	98.6	106.4	92.1	85.0	85.2	88.5
Japan	10.9	15.3	26.1	51.5	74.5	84.2	92.4	86.3	83.1	90.9	118.8	130.1	135.9	114.0
Belgium	20.0	27.9	41.9	89.6	63.4	76.7	76.8	71.6	88.9	90.4	93.8	94.8	111.5	–
Denmark	13.5	20.4	30.9	59.4	60.4	78.4	79.5	74.8	94.1	92.7	89.2	93.0	110.2	109.1
France	20.2	22.0	32.9	73.5	69.0	81.0	79.3	74.3	90.0	91.5	95.1	91.8	99.8	97.3
Germany	10.5	17.1	28.1	59.9	58.7	75.3	77.2	73.3	87.2	87.7	99.7	100.0	115.3	110.7
Italy	15.9	24.7	34.0	62.9	62.6	73.9	75.1	75.8	93.0	97.0	80.3	75.8	74.6	82.5
Netherlands	15.4	25.6	41.1	82.0	67.1	83.0	83.0	75.3	88.9	89.8	96.2	92.4	104.0	–
Norway	11.3	17.8	27.2	63.9	65.3	77.5	86.1	82.9	95.0	95.7	88.3	90.7	104.5	106.1
Sweden	16.8	23.0	32.7	69.6	58.3	68.5	75.0	76.4	90.8	96.6	68.6	65.7	71.8	79.6
United Kingdom	16.3	20.0	25.9	81.3	66.4	78.0	85.6	80.0	93.5	98.7	85.9	87.7	91.9	94.5

– Data not available.

45. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1985	1986	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]
PRIVATE SECTOR[5]												
Total cases	7.9	7.9	8.3	8.6	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4
Lost workday cases	3.6	3.6	3.8	4.0	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4
Lost workdays	64.9	65.8	69.9	76.1	78.7	84.0	86.5	93.8	–	–	–	–
Agriculture, forestry, and fishing[5]												
Total cases	11.4	11.2	11.2	10.9	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7
Lost workday cases	5.7	5.6	5.7	5.6	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9
Lost workdays	91.3	93.6	94.1	101.8	100.9	112.2	108.3	126.9	–	–	–	–
Mining												
Total cases	8.4	7.4	8.5	8.8	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4
Lost workday cases	4.8	4.1	4.9	5.1	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2
Lost workdays	145.3	125.9	144.0	152.1	137.2	119.5	129.6	204.7	–	–	–	–
Construction												
Total cases	15.2	15.2	14.7	14.6	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9
Lost workday cases	6.8	6.9	6.8	6.8	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5
Lost workdays	128.9	134.5	135.8	142.2	143.3	147.9	148.1	161.9	–	–	–	–
General building contractors:												
Total cases	15.2	14.9	14.2	14.0	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0
Lost workday cases	6.8	6.6	6.5	6.4	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0
Lost workdays	120.4	122.7	134.0	132.2	137.3	137.6	132.0	142.7	–	–	–	–
Heavy construction, except building:												
Total cases	14.5	14.7	14.5	15.1	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0
Lost workday cases	6.3	6.3	6.4	7.0	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3
Lost workdays	127.3	132.9	139.1	162.3	147.1	144.6	160.1	165.8	–	–	–	–
Special trades contractors:												
Total cases	15.4	15.6	15.0	14.7	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4
Lost workday cases	7.0	7.2	7.1	7.0	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8
Lost workdays	133.3	140.4	135.7	141.1	144.9	153.1	151.3	168.3	–	–	–	–
Manufacturing												
Total cases	10.4	10.6	11.9	13.1	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6
Lost workday cases	4.6	4.7	5.3	5.7	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9
Lost workdays	80.2	85.2	95.5	107.4	113.0	120.7	121.5	124.6	–	–	–	–
Durable goods:												
Total cases	10.9	11.0	12.5	14.2	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6
Lost workday cases	4.7	4.8	5.4	5.9	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1
Lost workdays	82.0	87.1	96.8	111.1	116.5	123.3	122.9	126.7	–	–	–	–
Lumber and wood products:												
Total cases	18.5	18.9	18.9	19.5	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2
Lost workday cases	9.3	9.7	9.6	10.0	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8
Lost workdays	171.4	177.2	176.5	189.1	177.5	172.5	172.0	165.8	–	–	–	–
Furniture and fixtures:												
Total cases	15.0	15.2	15.4	16.6	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2
Lost workday cases	6.3	6.3	6.7	7.3	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4
Lost workdays	100.4	103.0	103.6	115.7	–	–	–	128.4	–	–	–	–
Stone, clay, and glass products:												
Total cases	13.9	13.6	14.9	16.0	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4
Lost workday cases	6.7	6.5	7.1	7.5	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0
Lost workdays	127.8	126.0	135.8	141.0	149.8	160.5	156.0	152.2	–	–	–	–
Primary metal industries:												
Total cases	12.6	13.6	17.0	19.4	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0
Lost workday cases	5.7	6.1	7.4	8.2	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8
Lost workdays	113.8	125.5	145.8	161.3	168.3	180.2	169.1	175.5	–	–	–	–
Fabricated metal products:												
Total cases	16.3	16.0	17.0	18.8	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4
Lost workday cases	6.9	6.8	7.2	8.0	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2
Lost workdays	110.1	115.5	121.9	138.8	147.6	155.7	146.6	144.0	–	–	–	–
Industrial machinery and equipment:												
Total cases	10.8	10.7	11.3	12.1	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9
Lost workday cases	4.2	4.2	4.4	4.7	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0
Lost workdays	69.3	72.0	72.7	82.8	86.8	88.9	86.6	87.7	–	–	–	–
Electronic and other electrical equipment:												
Total cases	6.4	6.4	7.2	8.0	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8
Lost workday cases	2.7	2.7	3.1	3.3	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1
Lost workdays	45.7	49.8	55.9	64.6	77.5	79.4	83.0	81.2	–	–	–	–
Transportation equipment:												
Total cases	9.0	9.6	13.5	17.7	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3
Lost workday cases	3.9	4.1	5.7	6.6	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0
Lost workdays	71.6	79.1	105.7	134.2	138.6	153.7	166.1	186.6	–	–	–	–
Instruments and related products:												
Total cases	5.2	5.3	5.8	6.1	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1
Lost workday cases	2.2	2.3	2.4	2.6	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3
Lost workdays	37.9	42.2	43.9	51.5	55.4	57.8	64.4	65.3	–	–	–	–
Miscellaneous manufacturing industries:												
Total cases	9.7	10.2	10.7	11.3	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5
Lost workday cases	4.2	4.3	4.6	5.1	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4
Lost workdays	73.2	70.9	81.5	91.0	97.6	113.1	104.0	108.2	–	–	–	–

See footnotes at end of table.

45. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1985	1986	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]
Nondurable goods:												
Total cases	9.6	10.0	11.1	11.4	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2
Lost workday cases	4.4	4.6	5.1	5.4	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6
Lost workdays	77.6	82.3	93.5	101.7	107.8	116.9	119.7	121.8	–	–	–	–
Food and kindred products:												
Total cases	16.7	16.5	17.7	18.5	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0
Lost workday cases	8.1	8.0	8.6	9.2	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0
Lost workdays	138.0	137.8	153.7	169.7	174.7	202.6	207.2	211.9	–	–	–	–
Tobacco products:												
Total cases	7.3	6.7	8.6	9.3	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7
Lost workday cases	3.0	2.5	2.5	2.9	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8
Lost workdays	51.7	45.6	46.4	53.0	64.2	62.3	52.0	42.9	–	–	–	–
Textile mill:												
Total cases	7.5	7.8	9.0	9.6	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8
Lost workday cases	3.0	3.1	3.6	4.0	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6
Lost workdays	57.4	59.3	65.9	78.8	81.4	85.1	88.3	87.1	–	–	–	–
Apparel and other textile products:												
Total cases	6.7	6.7	7.4	8.1	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4
Lost workday cases	2.6	2.7	3.1	3.5	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3
Lost workdays	44.1	49.4	59.5	68.2	80.5	92.1	99.9	104.6	–	–	–	–
Paper and allied products:												
Total cases	10.2	10.5	12.8	13.1	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9
Lost workday cases	4.7	4.7	5.8	5.9	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8
Lost workdays	94.6	99.5	122.3	124.3	132.9	124.8	122.7	125.9	–	–	–	–
Printing and publishing:												
Total cases	6.3	6.5	6.7	6.6	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0
Lost workday cases	2.9	2.9	3.1	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8
Lost workdays	49.2	50.8	55.1	59.8	63.8	69.8	74.5	74.8	–	–	–	–
Chemicals and allied products:												
Total cases	5.1	6.3	7.0	7.0	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8
Lost workday cases	2.3	2.7	3.1	3.3	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4
Lost workdays	38.8	49.4	58.8	59.0	63.4	61.6	62.4	64.2	–	–	–	–
Petroleum and coal products:												
Total cases	5.1	7.1	7.3	7.0	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6
Lost workday cases	2.4	3.2	3.1	3.2	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5
Lost workdays	49.9	67.5	65.9	68.4	68.1	77.3	68.2	71.2	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	13.4	14.0	15.9	16.3	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3
Lost workday cases	6.3	6.6	7.6	8.1	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3
Lost workdays	107.4	118.2	130.8	142.9	147.2	151.3	150.9	153.3	–	–	–	–
Leather and leather products:												
Total cases	10.3	10.5	12.4	11.4	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7
Lost workday cases	4.6	4.8	5.8	5.6	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5
Lost workdays	88.3	83.4	114.5	128.2	130.4	152.3	140.8	128.5	–	–	–	–
Transportation and public utilities												
Total cases	8.6	8.2	8.4	8.9	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7
Lost workday cases	5.0	4.8	4.9	5.1	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1
Lost workdays	107.1	102.1	108.1	118.6	121.5	134.1	140.0	144.0	–	–	–	–
Wholesale and retail trade												
Total cases	7.4	7.7	7.7	7.8	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8
Lost workday cases	3.2	3.3	3.4	3.5	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9
Lost workdays	50.7	54.0	56.1	60.9	63.5	65.6	72.0	80.1	–	–	–	–
Wholesale trade:												
Total cases	7.2	7.2	7.4	7.6	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6
Lost workday cases	3.5	3.6	3.7	3.8	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4
Lost workdays	59.8	62.5	64.0	69.2	71.9	71.5	79.2	82.4	–	–	–	–
Retail trade:												
Total cases	7.5	7.8	7.8	7.9	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9
Lost workday cases	3.1	3.2	3.3	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8
Lost workdays	47.0	50.5	52.9	57.6	60.0	63.2	69.1	79.2	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.0	2.0	2.0	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4
Lost workday cases	.9	.9	.9	.9	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9
Lost workdays	15.4	17.1	14.3	17.2	17.6	27.3	24.1	32.9	–	–	–	–
Services												
Total cases	5.4	5.3	5.5	5.4	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0
Lost workday cases	2.6	2.5	2.7	2.6	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6
Lost workdays	45.4	43.0	45.8	47.7	51.2	56.4	60.0	68.6	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays;

EH = total hours worked by all employees during the calendar year; and

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

– Data not available.

46. Fatal occupational injuries by event or exposure, 1992–96

Event or exposure[1]	Fatalities					
	1992	1993	1994	1995	1996	
	Number	Number	Number	Number	Number	Percent
Total	6,217	6,331	6,632	6,275	6,112	100
Transportation incidents	2,484	2,499	2,762	2,588	2,556	42
Highway incident	1,158	1,242	1,343	1,345	1,324	22
Collision between vehicles, mobile equipment	578	659	654	642	656	11
Moving in same direction	78	100	120	127	95	2
Moving in opposite directions, oncoming	201	245	230	246	214	4
Moving in intersection	107	123	144	99	153	3
Vehicle struck stationary object or equipment	192	189	255	275	240	4
Noncollision incident	301	336	373	351	348	6
Jackknifed or overturned—no collision	213	236	274	261	264	4
Nonhighway (farm, industrial premises) incident	436	392	409	389	369	6
Overturned	208	214	226	210	204	3
Worker struck by vehicle	346	365	391	388	349	6
Railway incident	66	86	81	82	75	1
Water vehicle incident	109	119	94	87	107	2
Aircraft incident	353	282	426	283	320	5
Assaults and violent acts	1,281	1,329	1,321	1,280	1,144	19
Homicides	1,044	1,074	1,080	1,036	912	15
Hitting, kicking, beating	52	35	47	46	47	1
Shooting	852	884	934	762	751	12
Stabbing	90	95	60	67	79	1
Self-inflicted injuries	205	222	214	221	199	3
Contact with objects and equipment	1,004	1,045	1,017	916	1,005	16
Struck by object	557	565	590	547	579	9
Struck by falling object	361	346	372	341	402	7
Struck by flying object	77	81	68	63	58	1
Caught in or compressed by equipment or objects	316	311	280	255	283	5
Caught in running equipment or machinery	159	151	147	131	146	2
Caught in or crushed in collapsing materials	110	138	132	99	130	2
Falls	600	618	665	650	684	11
Fall to lower level	507	534	580	577	607	10
Fall from ladder	78	76	86	97	95	2
Fall from roof	108	120	129	143	148	2
Fall from scaffold, staging	66	71	89	82	88	1
Fall on same level	62	49	63	53	49	1
Exposure to harmful substances or environments	605	592	641	609	523	9
Contact with electric current	334	325	348	348	279	5
Contact with overhead power lines	140	115	132	139	116	2
Contact with temperature extremes	33	38	50	56	32	1
Exposure to caustic, noxious, or allergenic substances	127	116	133	107	119	2
Inhalation of substances	83	68	84	62	75	1
Oxygen deficiency	111	112	109	97	92	2
Drowning, submersion	78	90	89	77	67	1
Fires and explosions	167	204	202	207	184	3
Other events or exposures[2]	76	44	24	25	16	–

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dashes indicate less that 0.5 percent or data that are not available or that do not meet publication criteria.

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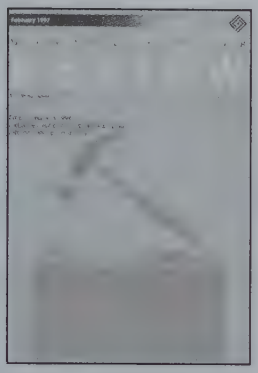

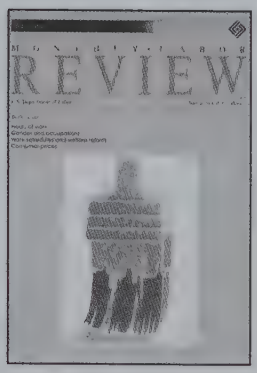

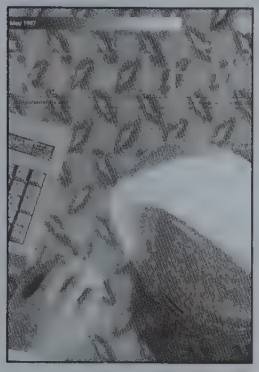

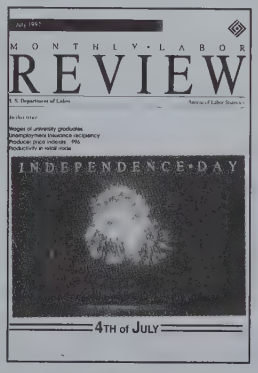

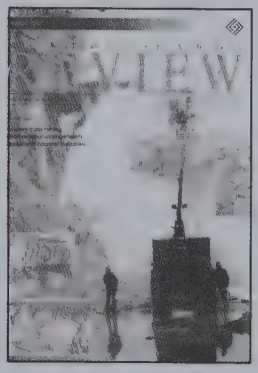

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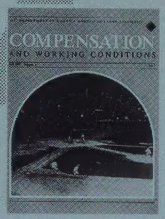

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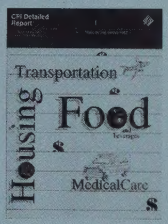

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Productivity and costs	December 4	3rd quarter			2; 38–41
Producer Price Indexes	December 12	November	January 8	December	2; 30–32
Consumer Price indexes	December 16	November	January 13	December	2; 27–29
Real earnings	December 16	November	January 13	December	13–16
U.S. Import and Export Price Indexes	December 11	November	January 14	December	33–37
Employment Cost Indexes			January 27	4th quarter	1–3; 21–24